

LBT-N500/N550/N550K/N550P

SERVICE MANUAL

AEP Model
LBT-N500/N550

UK Model

Australian Model

Mexican Model

Argentine Model

PX Model

LBT-N550

E Model

LBT-N550K/N550P

- LBT-N500/N550/N550K/N550P are composed at following models.
As for the service manual, it is issued for each component model, then
please refer to it.

COMPONENT MODEL NAME FOR THESE SYSTEM

	LBT-N500					LBT-N550								LBT-N550K				LBT-N550P
	AEP	G	IT	EE	CIS	AEP	UK	G	AUS	AR	MX	PX	EA	MY	SP	E	E	
Tuner, Preamplifier				STR-N500					STR-N500									
Power Amplifier	TAN-N500																	
Cassette Deck	TC-N500																	
Compact Disc Player	CDP-N500					CDP-N550C												
Speaker System									SS-LB500									
Turntable	*PS-LX56P					PS-LX56P											PS-LX56P	

Note: Abbreviation

AR : Argentine Model	IT : Italian Model
AUS : Australian Model	MX : Mexican Model
EA : Saudi Arabia Model	MY : Malaysia Model
EE : East European Model	SP : Singapore Model
G : German Model	

*: LBT-N500

There are two type of LBT-N500 system.

One is consisting PS-LX56P and the other one does not consist PS-LX56P.

COMPACT Hi-Fi STEREO SYSTEM
SONY®

PARTS LIST

NOTE:

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation

AR : Argentine Model	G : German Model	SP : Singapore Model
AUS : Australian Model	IT : Italian Model	
EA : Saudi Arabia Model	MX : Mexican Model	
EE : East European Model	MY : Malaysia Model	

<u>Part No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Description</u>
1-467-997-11	COMMANDER, STANDARD (RM-S500L)	* 4-973-086-01	INDIVIDUAL CARTON (N500:EE, CIS)
1-501-374-11	ANTENNA, LOOP	* 4-973-307-01	CUSHION (UPPER) (CDP-N500/STR-N500:UK, EE, CIS, E, MX, AR, AUS, PX/STR-N500K)
1-501-594-31	ANTENNA (FM) (AEP, UK, IT, EE, CIS)	* 4-973-639-01	INDIVIDUAL CARTON (STR-N500:UK, CIS, E, PX/STR-N500K)
1-501-659-41	ANTENNA (FM) (E, EA, SP, MY, MX, AR, AUS, PX)		
1-769-392-11	CORD (WITH CONNECTOR)		
		* 4-973-650-01	CUSHION (LOWER) (CDP-N500/STR-N500:UK, EE, CIS, E, MX, AR, AUS, PX/STR-N500K)
1-769-393-11	CORD (WITH CONNECTOR)	* 4-973-867-01	INDIVIDUAL CARTON (STR-N500:AEP, G, IT)
3-798-377-41	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (N500:AEP)	* 4-973-868-01	CUSHION (STR-N500:AEP, G, IT)
3-798-377-51	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (N500:AEP, IT)	* 4-973-916-01	CUSHION (FRONT) (CDP-N550C)
3-798-377-71	MANUAL, INSTRUCTION (GERMAN) (N500:G)	* 4-973-917-01	CUSHION (REAR) (CDP-N550C)
3-798-377-81	MANUAL, INSTRUCTION (ENGLISH, GERMAN, POLISH, RUSSIAN) (N500:EE, CIS)	* 4-974-070-01	INDIVIDUAL CARTON (SS-LB500:AUS)
3-798-423-11	MANUAL, INSTRUCTION (ENGLISH) (N550:UK)	* 4-974-071-01	CUSHION (SS-LB500)
3-798-423-41	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (N550:AEP)	* 4-974-187-01	INDIVIDUAL CARTON (N550:AEP, UK) (WITH TURNTABLE)
		* 4-974-188-01	INDIVIDUAL CARTON (N550:AEP, G) (WITHOUT TURNTABLE)
3-798-423-51	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (N550:AEP, G)		
3-798-423-81	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, CHINESE) (E, EA, MY, SP, MX, AR, AUS, PX)	* 4-974-189-01	INDIVIDUAL CARTON (N550P)
4-937-945-11	PLATE (TRANSPORT), LOCK (CDP-N550C)	* 4-974-191-01	INDIVIDUAL CARTON (N550:AUS, PX)
		* 4-974-192-01	INDIVIDUAL CARTON (N550:AR)
4-941-762-01	COVER (MLY), BATTERY (for RM-S500L)	* 4-974-193-01	INDIVIDUAL CARTON (N550:MX)
* 4-947-532-01	SNOW BOX (L) (PS-LX56P)	* 4-974-194-01	INDIVIDUAL CARTON (N550K:EA)
* 4-947-533-01	SNOW BOX (R) (PS-LX56P)		
4-955-313-01	ADAPTOR, 45 (PS-LX56P)	* 4-974-195-01	INDIVIDUAL CARTON (N550K:E, MY, SP)
* 4-973-083-01	INDIVIDUAL CARTON (N500:AEP) (WITH TURNTABLE)	* 4-975-728-01	INDIVIDUAL CARTON (SS-LB500:E)
		* 4-975-729-01	INDIVIDUAL CARTON (SS-LB500:MX)
* 4-973-084-01	INDIVIDUAL CARTON (N500:AEP, G, IT) (WITHOUT TURNTABLE)	A-4674-087-A	TURNTABLE ASSY (PS-LX56P)

STR-N500/N600

SERVICE MANUAL

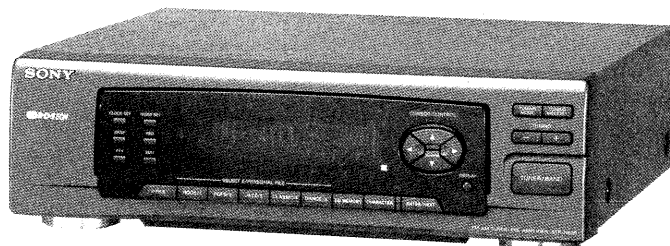


Photo: STR-N600

STR-N500/N600 are tuner and amplifier section in LBT-N500, LBT-N550, LBT-N550P, LBT-N600AV and LBT-N650AV.

AEP Model
UK Model
E Model
Australian Model
STR-N500/N600
PX Model
STR-N500

SPECIFICATIONS

System FM stereo
FM/AM superheterodyne tuner

FM tuner section

Tuning range 87.5 - 108.0 MHz
Aerial 75 ohms unbalanced
Intermediate frequency 10.7 MHz

AM tuner section

Tuning range
Latin American models:
AM: 530 - 1,710 kHz
German and Italian models:
AM: 531 - 1,602 kHz
Other European models:
MW: 531 - 1,602 kHz
LW: 153 - 279 kHz
Other models:
AM: 531 - 1,602 kHz

Aerial AM loop aerial
External aerial terminals
Intermediate frequency 450 kHz

Input	Jack type
AUX	Phono
PHONO (MM)	Phono

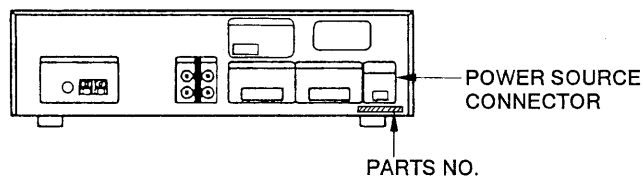
input	Sensitivity	Impedance
AUX	245 mV	47 kilohms
PHONO (MM)	3.3 mV	47 kilohms

Weight Approx. 2.6 kg
Dimensions Approx. 355 x 105 x 315 mm
(w/h/d, including projections)

FM-AM TUNER/PRE-AMPLIFIER
SONY®

MODEL IDENTIFICATION

– BACK PANEL –





	PARTS NO.	NOTE
N500: UK Model	4-969-784-0□	With power source connector for PS-LX56P
N500: AEP, German, Italian Model	4-969-784-1□	
N500: East European, CIS Model	4-969-784-2□	
N500: E Model	4-970-163-0□	With power source connector for PS-LX56P
N500: Mexican, Australian, PX Model	4-970-163-1□	
N500: Argentine Model	4-970-163-4□	
N500: AEP 2 Model	4-973-530-0□	AEP model with power source connector for PS-LX56P
N600: AEP, UK, German, Italian Model	4-969-784-4□	
N600: East European, CIS Model	4-969-784-5□	
N600: E Model	4-970-163-5□	
N600: Australian Model	4-970-163-6□	

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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

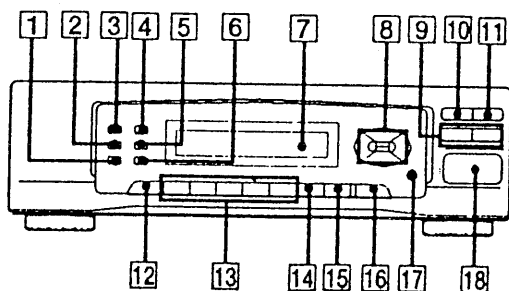
SECTION 1 GENERAL

This section is extracted from instruction manual.

1-1. INDEX TO PARTS AND CONTROLS

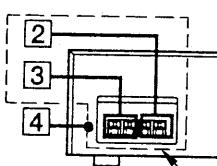
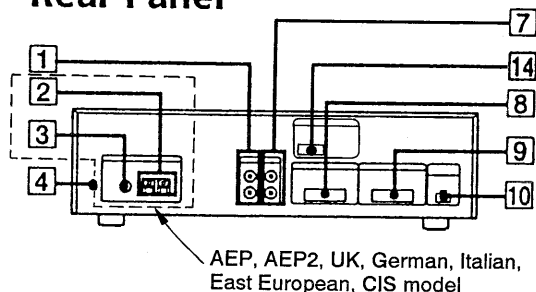
Front Panel

Tuner / Preamplifier (STR-N500/N600)



- 1 PTY button (*)
 - 2 DAILY button
 - 3 CLOCK SET button
 - 4 TIMER SET button
 - 5 REC button
 - 6 EON button (*)
 - 7 Display window
 - 8 CURSOR CONTROL keys
 - 9 TUNING (+/-) buttons
 - 10 TUNING MODE button
 - 11 TUNING MEMORY button
 - 12 P.FILE button
 - 13 SELECT 5/PERSONAL FILE buttons
 - 14 EQ MEMORY button
 - 15 CHARACTER button
 - 16 ENTER/NEXT button
 - 17 DISPLAY button
 - 18 TUNER/BAND button
- *: AEP, UK, German, Italian, East European ONLY.

Rear Panel

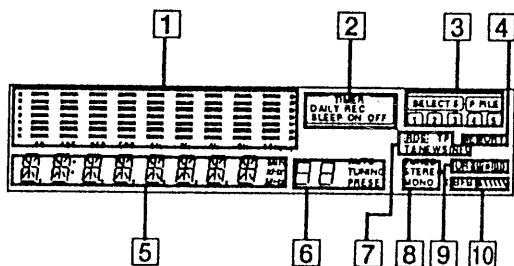


- 1 PHONO IN jacks
- 2 AM terminal
- 3 FM 75Ω terminal
- 4 ground terminal
- 7 AUX IN jacks
- 8 SYSTEM CONTROL 1 terminals
- 9 SYSTEM CONTROL 2 terminals
- 10 POWER SOURCE terminal (only for the model supplied with a turntable) (N500: AEP2, UK, E ONLY)
- 14 SYSTEM CONTROL 3 terminals (N600 ONLY)

*AEP: AEP model without power source for PS-LX56P.
AEP2: AEP model with power source for PS-LX56P.

Display Window

Tuner / Preamplifier (STR-N500/N600)



- 1 Spectrum analyser
- 2 TIMER DAILY/REC/SLEEP/ON/OFF indications
- 3 SELECT 5/P.FILE indications
- 4 MEMORY indication
- 5 Frequency/Station name/Function indications
- 6 AUTO/TUNING/PRESET indications
- 7 RDS indications
- 8 Tuner indications
- 9 SURROUND indication
- 10 DBFB indication

SECTION 2

ELECTRICAL ADJUSTMENTS

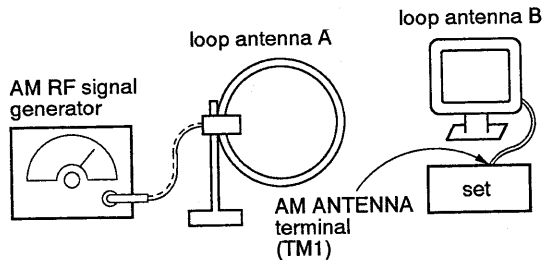
Note: As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

The FM TUNED level must be adjusted after the AM TUNED level adjustment has completed.

0 dB = 1 μ V

AM Section Adjustment

Setting:



Carrier frequency: 999 kHz (except E model)
: 1,000 kHz (E model)
Modulation: 400 Hz, 30% modulation

AM tuned Level Adjustment

Band: AM

Procedure:

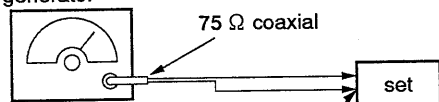
1. Set loop antenna A so that the loop antenna B input level becomes 316 μ V (50 dB μ).
2. Tune the set to 999 kHz (except E model) or 1,000 kHz (E model).
3. Adjust RV1 so that the TUNED indicator goes on.

Adjustment Location: main board

FM Section Adjustment

Setting:

FM RF stereo signal generator



Carrier frequency: 98 MHz
Modulation: 1 kHz, 75 kHz deviation

FM ANTENNA terminal (TM1)

FM Tuned Level Adjustment

Band: FM

Procedure:

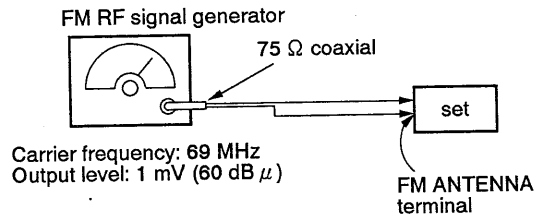
1. Supply a 17.8 μ V (25 dB μ) 98 MHz signal from the ANTENNA terminal.
2. Tune the set to 98 MHz.
3. Adjust RV2 so that the TUNED indicator goes on.

Adjustment Location: main board

FM POLAR Adjustment

Setting:

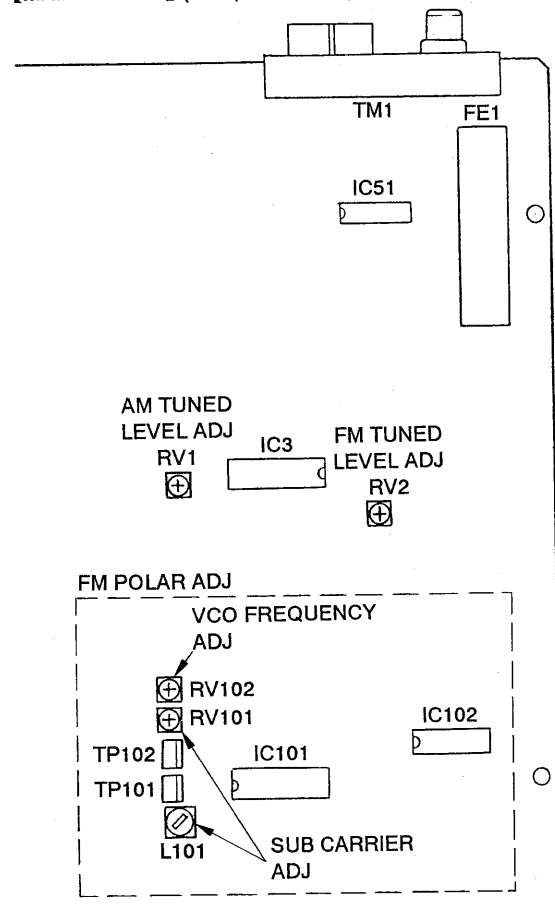
Band: FM



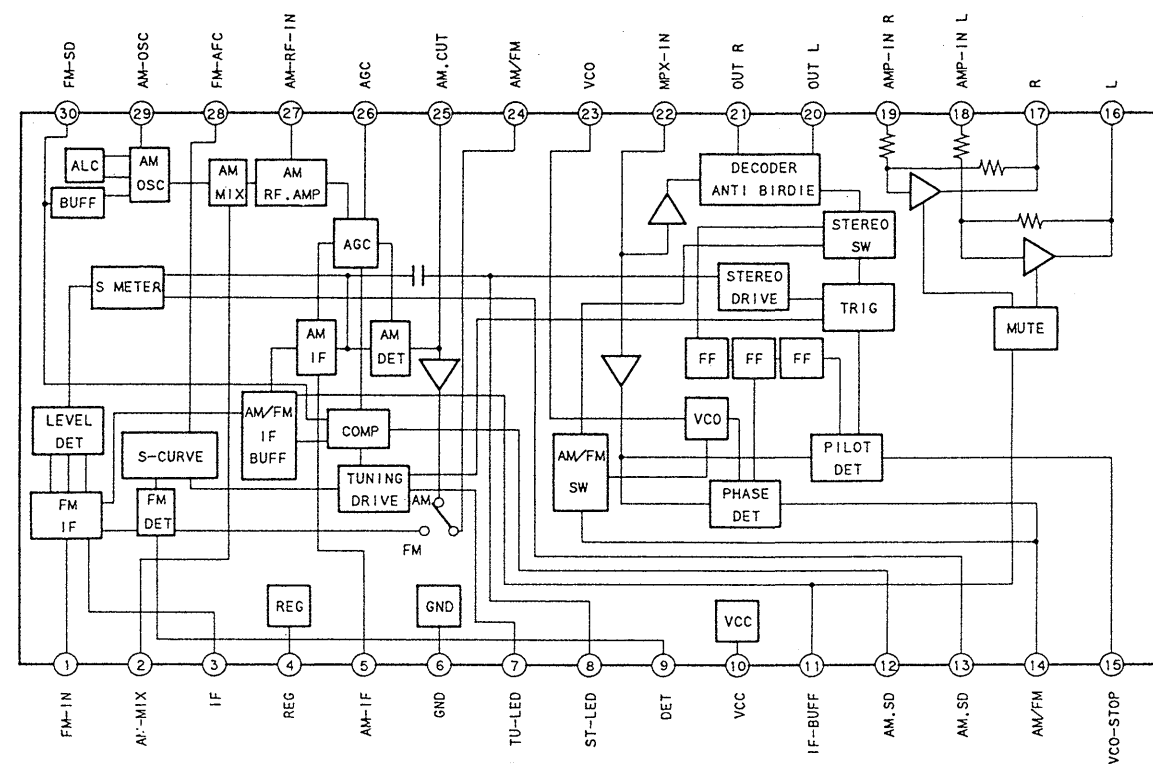
1. Connect the frequency counter to the TP102 and adjust the RV102 for a frequency of 31.25 kHz \pm 50 Hz.
2. Connect the VTVM to the TP101, receive the signal of 69 MHz \pm 1 kHz (1 kHz dev.) and adjust the reading of the VTVM to 0 dB.
3. Set the modulation frequency of the FM RF signal generator to 31.25 kHz (10 kHz dev.) and adjust the L101 so that the reading of the VTVM is 0 dB.
4. Adjust the RV101 so that the reading of the VTVM to 14 dB.
5. Check that the separation between Pins ④ and ⑭ of the IC102 is more than 18 dB.

Adjustment Location: main board

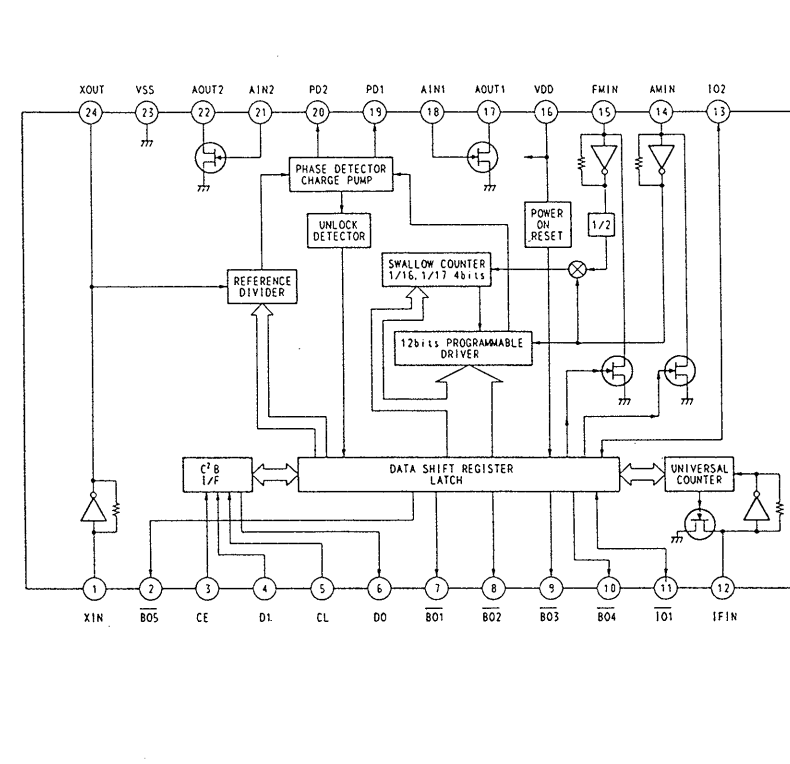
[MAIN BOARD] (Component Side)



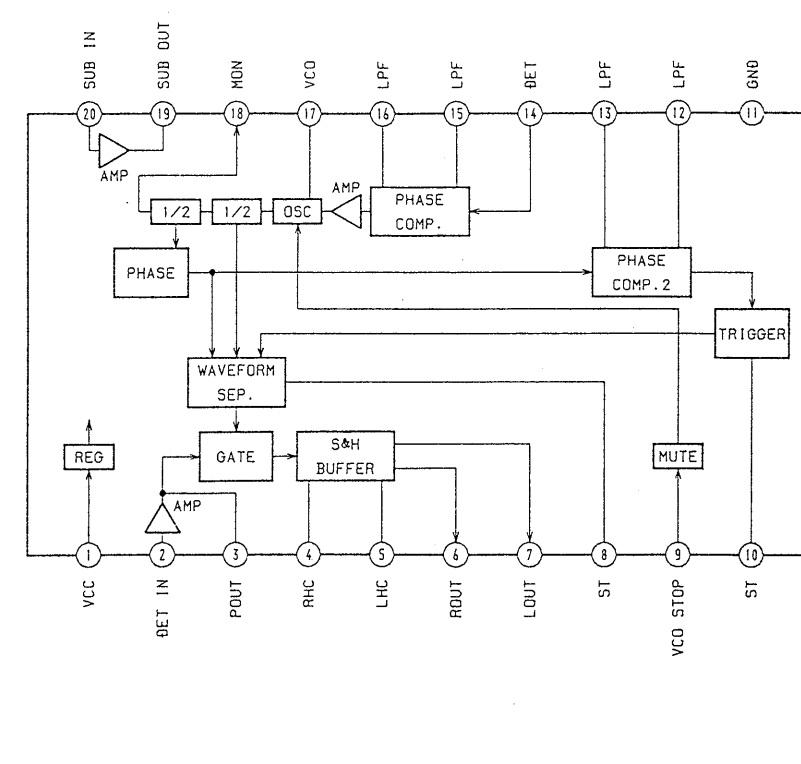
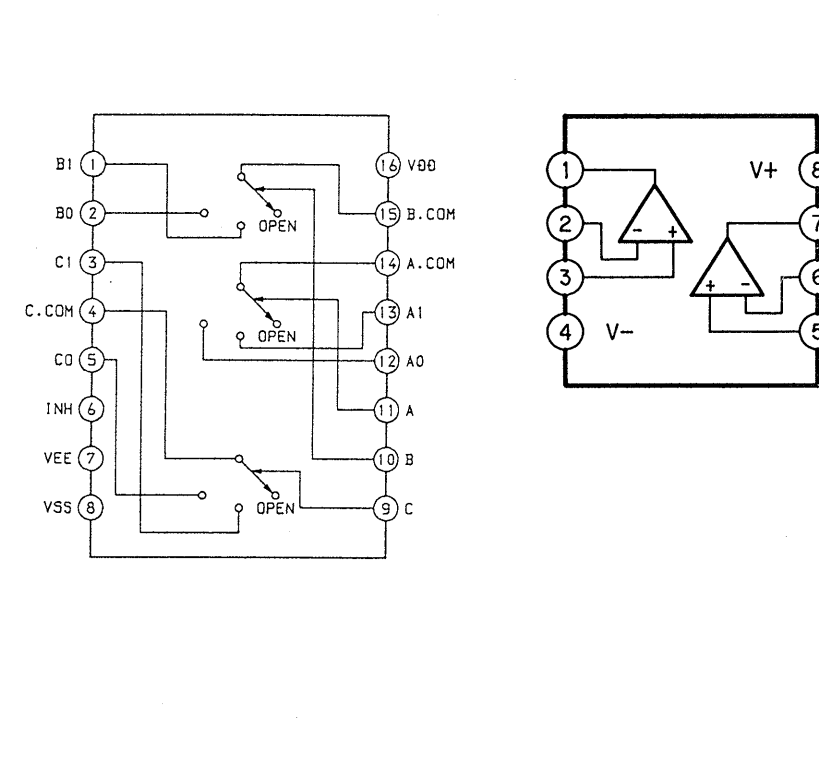
IC3 LA1835



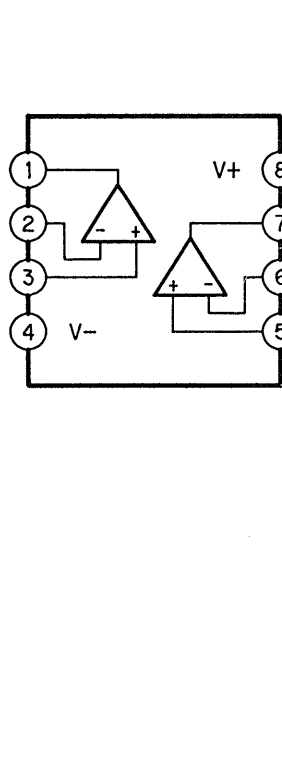
IC51 LC72130



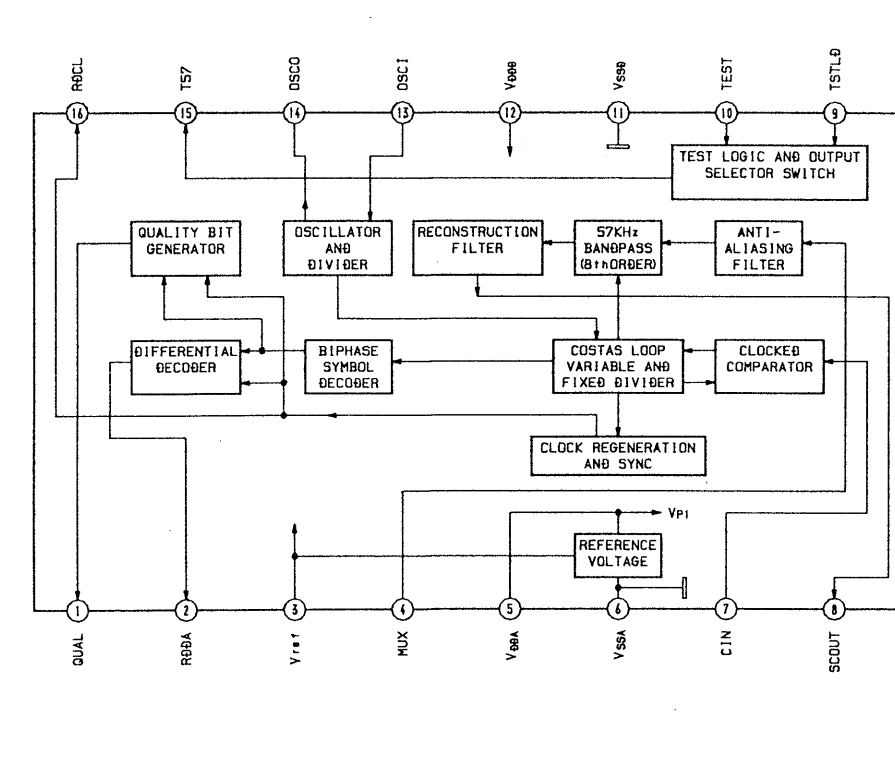
IC101 IR3R42

IC102 μ PD4053BC

IC201 M5218AP



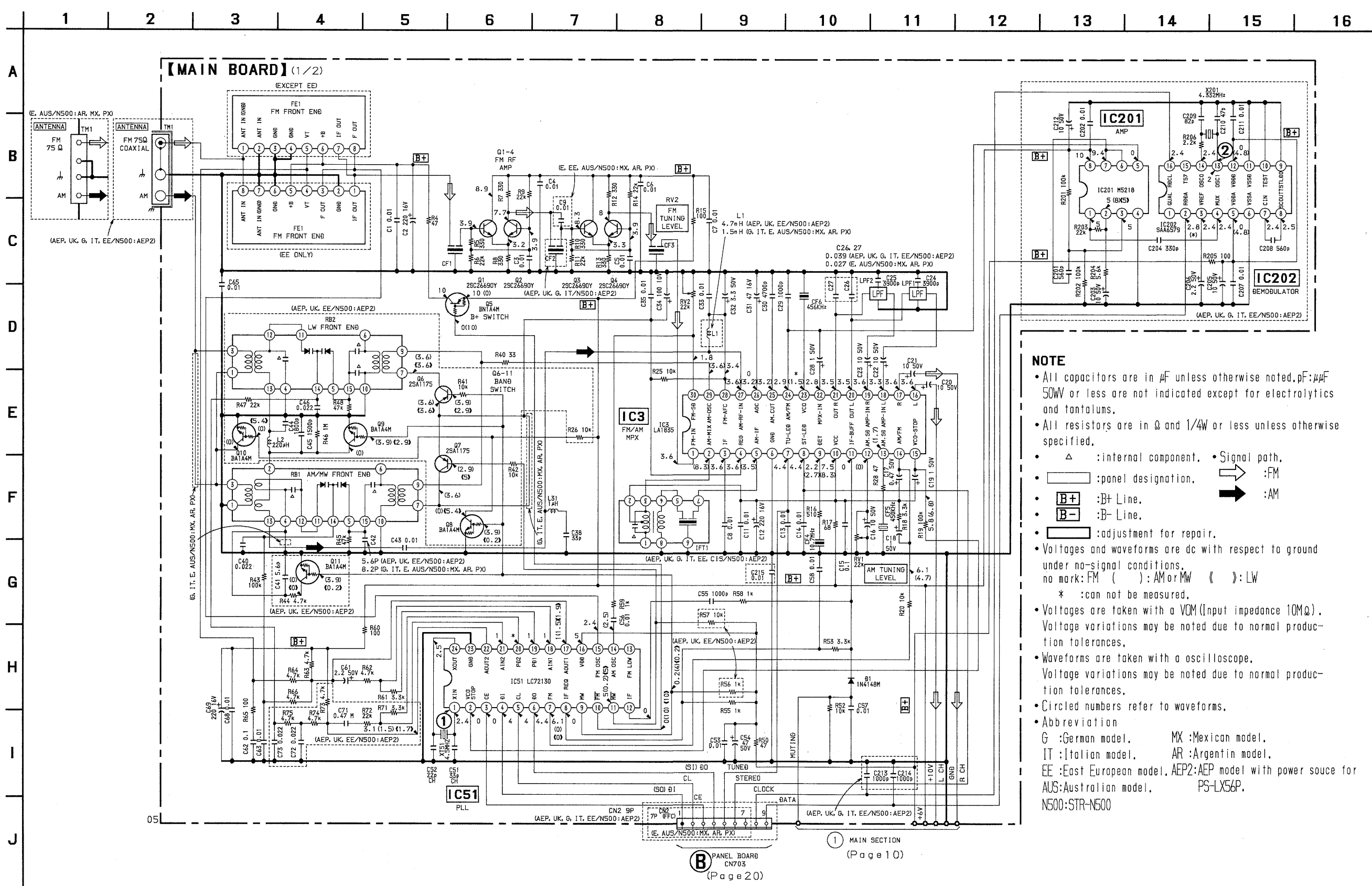
IC202 SAA6579



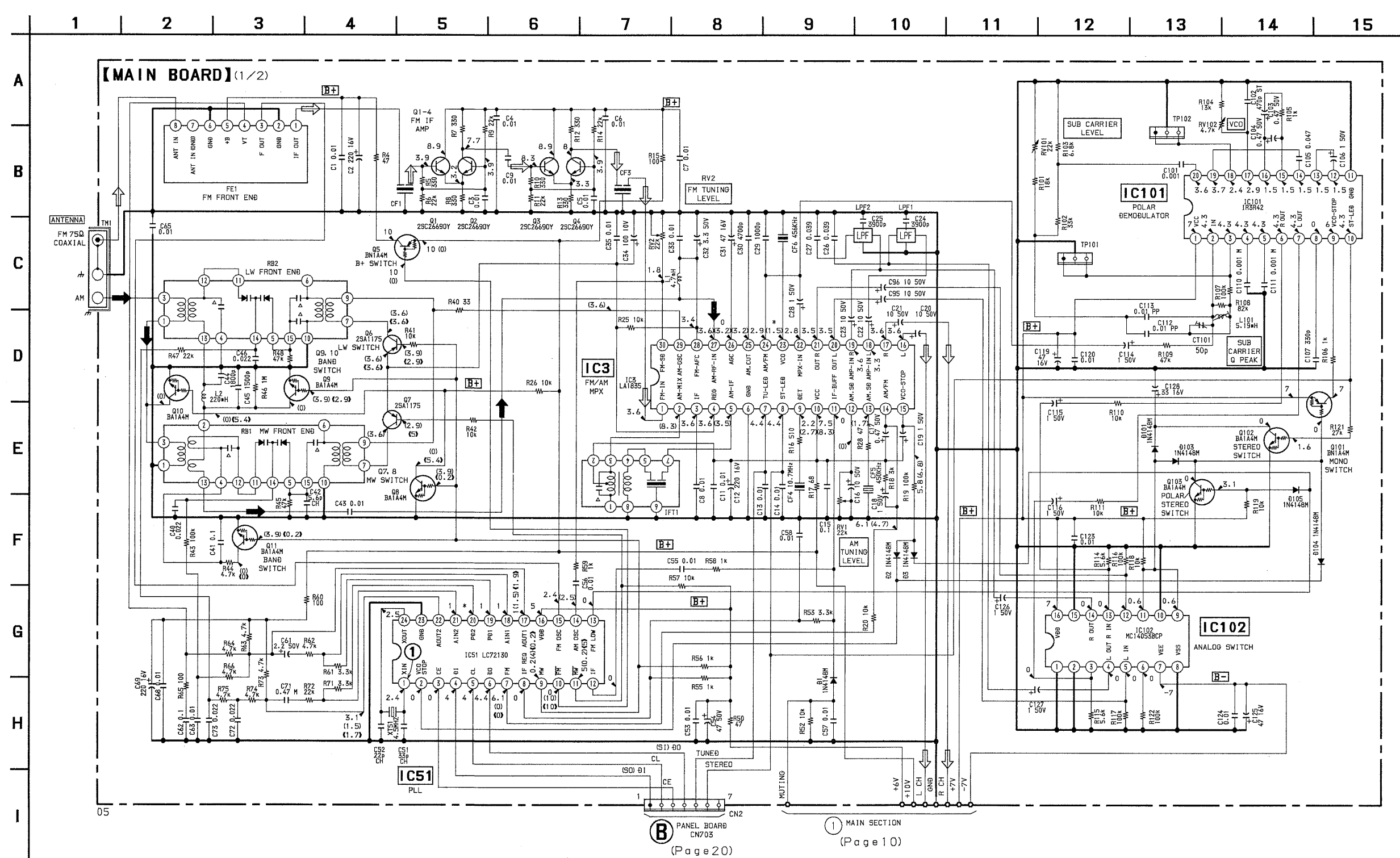
SECTION 3

DIAGRAMS

3-1. SCHEMATIC DIAGRAM – TUNER SECTION – • EXCEPT CIS model

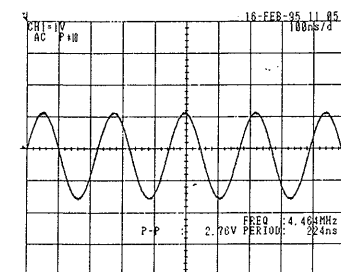


- CIS model

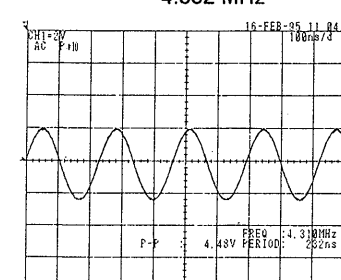


- Waveforms

① IC51 ① 2.8 Vp-p
4.5 MHz



② IC202 ⑬ 4.5 Vp-p
1.020 MHz



NOTE

- All capacitors are in μF unless otherwise noted, $\text{pF}:\mu\text{F}$
50W or less are not indicated except for electrolytics
and tantalums.

- All resistors are in Ω and $1/4W$ or less unless otherwise specified.

- Δ : internal component. •
- : panel designation.

- **B+** :B+ Line.
- **B-** :B- Line.

- **B-** :B- Line.
- :adjustment for repair.

- Voltages and waveforms are dc with respect to ground under no-signal conditions.

- * : can not be measured.

- Voltages are taken with a VOM (input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.

- Waveforms are taken with a oscilloscope.
- Voltage variations may be noted due to normal produc-

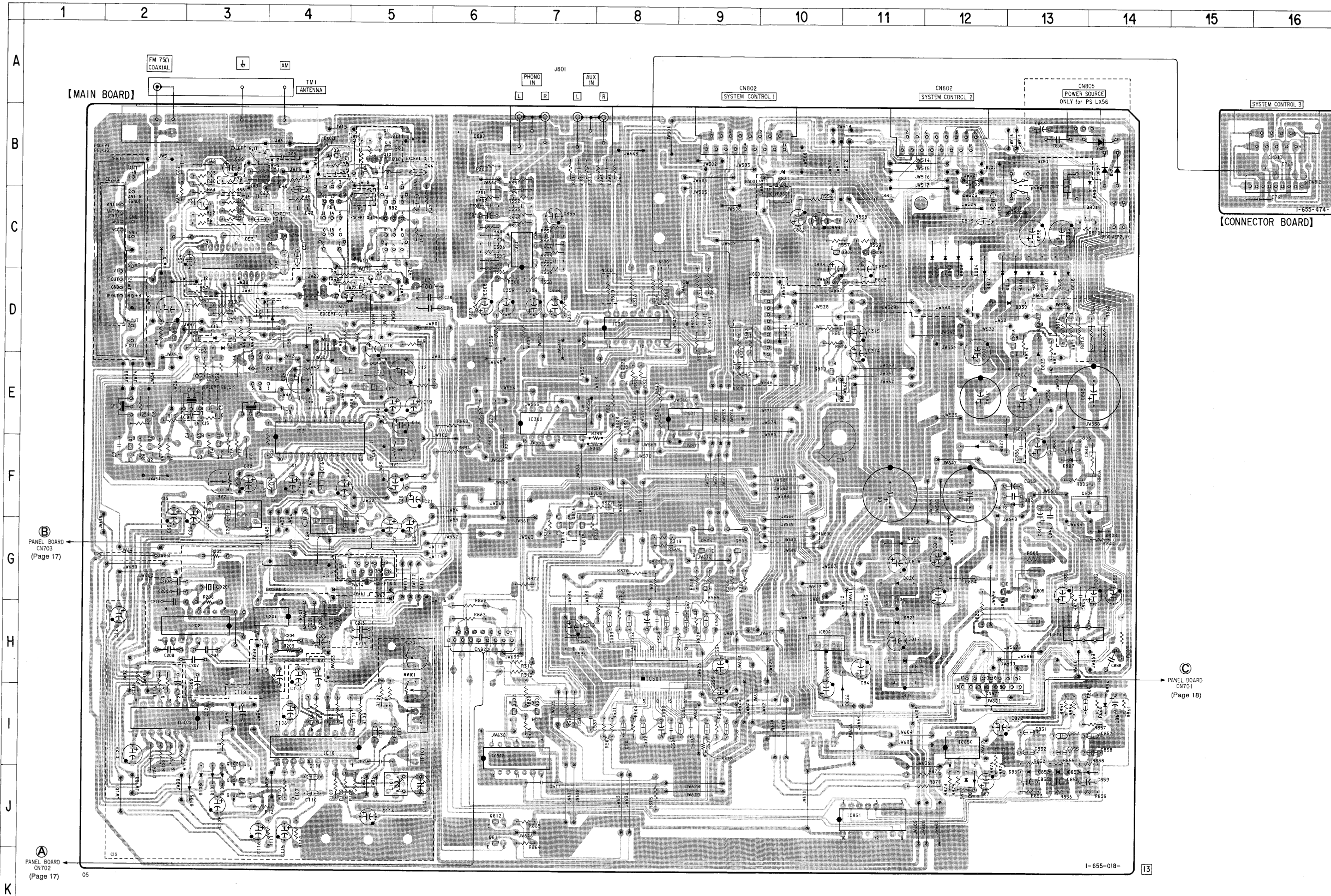
- Circled numbers refer to waveforms.

- Abbreviation
G : German model. MX : Mexican

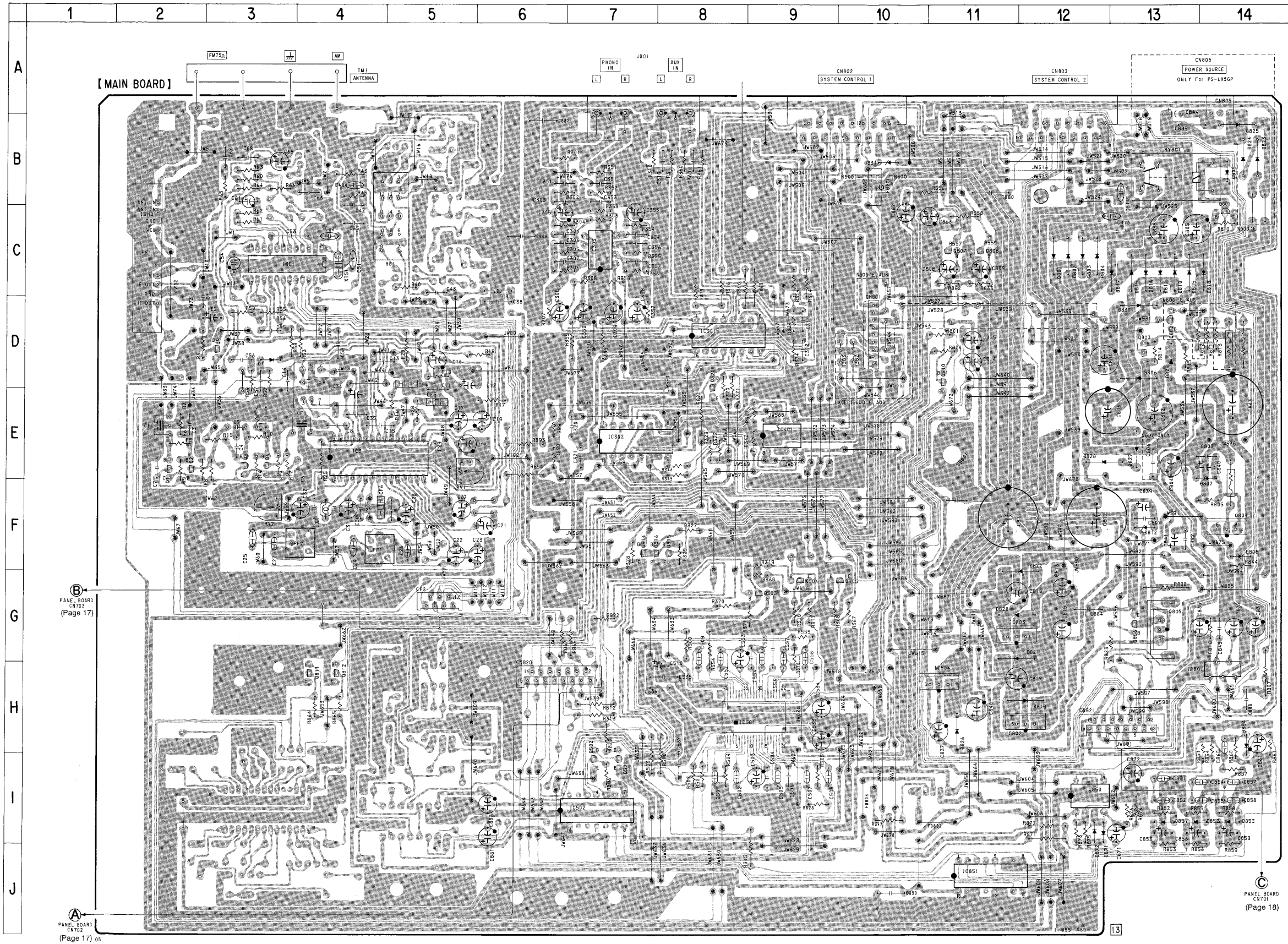
- IT : Italian model. AR : Argentina
EE : East European model. AEP2 : AEP no

- AUS: Australian model. PS-LX5
N500: STR-N500

3-3. PRINTED WIRING BOARDS - TUNER, MAIN SECTION -
• AEP, AEP2, UK, German, Italian, East European, CIS model (TYPE A)



• E, Australian, Mexican, PX, Argentine model (TYPE B)



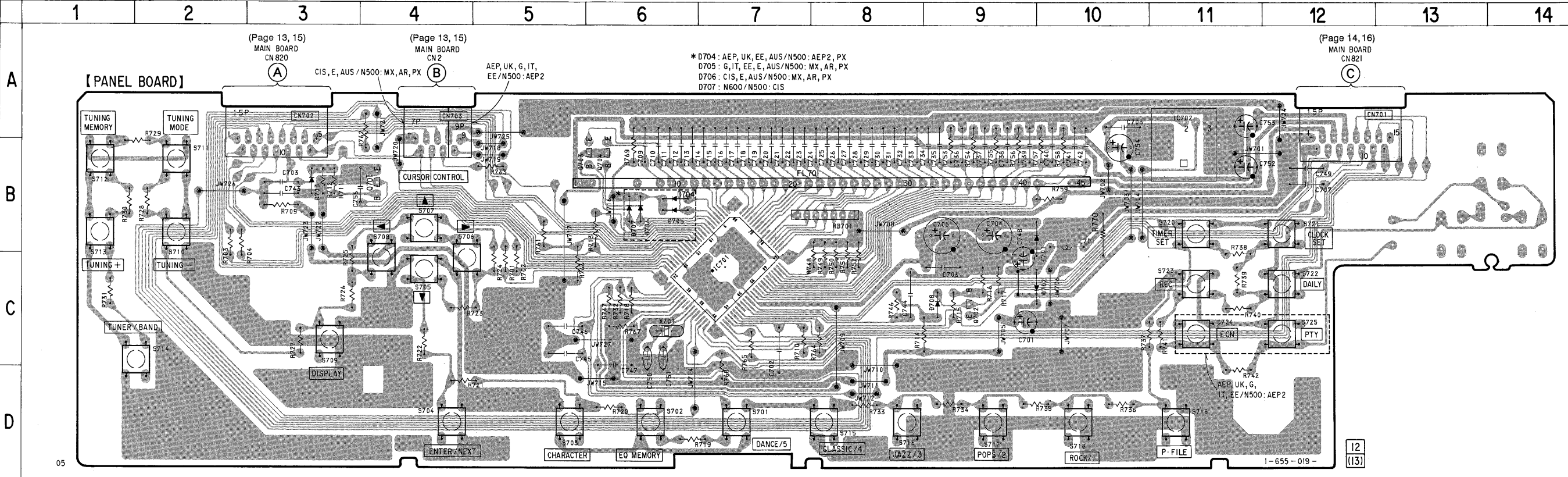
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1	D-3	IC302	E-7
D2	D-4 (TYPE A)	IC303	C-7
D3	D-3 (TYPE A)	IC401	E-9
D101	I-3 (TYPE A)	IC501	H-8
D103	I-3 (TYPE A)	IC502	I-6
D104	I-3 (TYPE A)	IC801	H-14
D105	I-3 (TYPE A)	IC802	H-11
D801	C-12	IC803	G-11
D802	C-12	IC804	H-10 (TYPE A)
D803	C-12	IC804	H-11 (TYPE B)
D804	C-12	IC850	I-12
D805	C-13	IC851	J-11
D806	D-13		
D807	E-13	Q1	E-2
D808	F-14	Q2	E-2
D809	B-14	Q3	E-3 (TYPE A)
D810	C-13	Q4	E-3 (TYPE A)
D811	F-13	Q5	D-2 (TYPE A)
D812	F-13	Q6	D-3 (TYPE B)
D815	C-12 (TYPE A)	Q7	C-5 (TYPE A)
D816	C-13 (TYPE B)	Q8	D-4 (TYPE A)
D817	C-13	Q9	B-5 (TYPE A)
D818	C-12 (TYPE A)	Q10	B-4 (TYPE A)
D819	C-13 (TYPE A)	Q11	B-5 (TYPE A)
D820	C-14 (TYPE B)	Q12	I-3 (TYPE A)
D821	H-11	Q13	J-3 (TYPE A)
D822	G-11	Q14	I-3 (TYPE A)
D823	F-11 (TYPE A)	Q15	D-8
D824	F-12 (TYPE B)	Q16	H-7
D825	B-14	Q17	H-7
D826	B-14	Q18	G-8
D827	B-14	Q19	G-9
D828	H-11	Q20	G-9
D829	E-13	Q21	C-14
D830	D-13	Q22	D-13
D831	B-10	Q23	D-13
D832	I-13	Q24	F-14
D833	I-13	Q25	G-13
D834	I-14	Q26	G-13
D835	H-14	Q27	C-10 (TYPE A)
D836	I-12	Q28	C-11 (TYPE B)
D837		Q29	C-11
D838		Q30	D-10
D839		Q31	J-6 (TYPE A)
D840		Q32	H-4 (TYPE B)
D841		Q33	J-6 (TYPE B)
D842		Q34	H-4 (TYPE B)
D843		Q35	F-7
D844		Q36	F-7 (TYPE A)
D845		Q37	F-7 (TYPE B)
D846		Q38	F-7
D847		Q39	F-7
D848		Q40	F-7
D849		Q41	F-7
D850		Q42	F-7
D851		Q43	F-7
D852		Q44	F-7
D853		Q45	F-7
D854		Q46	F-7
D855		Q47	F-7
D856		Q48	F-7
D857		Q49	F-7
D858		Q50	F-7
D859		Q51	F-7
D860		Q52	F-7
D861		Q53	F-7
D862		Q54	F-7
D863		Q55	F-7
D864		Q56	F-7
D865		Q57	F-7
D866		Q58	F-7
D867		Q59	F-7
D868		Q60	F-7
D869		Q61	F-7
D870		Q62	F-7
D871		Q63	F-7
D872		Q64	F-7
D873		Q65	F-7
D874		Q66	F-7
D875		Q67	F-7
D876		Q68	F-7
D877		Q69	F-7
D878		Q70	F-7
D879		Q71	F-7
D880		Q72	F-7
D881		Q73	F-7
D882		Q74	F-7
D883		Q75	F-7
D884		Q76	F-7
D885		Q77	F-7
D886		Q78	F-7
D887		Q79	F-7
D888		Q80	F-7
D889		Q81	F-7
D890		Q82	F-7
D891		Q83	F-7
D892		Q84	F-7
D893		Q85	F-7
D894		Q86	F-7
D895		Q87	F-7
D896		Q88	F-7
D897		Q89	F-7
D898		Q90	F-7
D899		Q91	F-7
D900		Q92	F-7
D901		Q93	F-7
D902		Q94	F-7
D903		Q95	F-7
D904		Q96	F-7
D905		Q97	F-7
D906		Q98	F-7
D907		Q99	F-7
D908		Q100	F-7
D909		Q101	F-7
D910		Q102	F-7
D911		Q103	F-7
D912		Q104	F-7
D913		Q105	F-7
D914		Q106	F-7
D915		Q107	F-7
D916		Q108	F-7
D917		Q109	F-7
D918		Q110	F-7
D919		Q111	F-7
D920		Q112	F-7
D921		Q113	F-7
D922		Q114	F-7
D923		Q115	F-7
D924		Q116	F-7
D925		Q117	F-7
D926		Q118	F-7
D927		Q119	F-7
D928		Q120	F-7
D929		Q121	F-7
D930		Q122	F-7
D931		Q123	F-7
D932		Q124	F-7
D933		Q125	F-7
D934		Q126	F-7
D935		Q127	F-7
D936		Q128	F-7
D937		Q129	F-7
D938		Q130	F-7
D939		Q131	F-7
D940		Q132	F-7
D941		Q133	F-7
D942		Q134	F-7
D943		Q135	F-7
D944		Q136	F-7
D945		Q137	F-7
D946		Q138	F-7
D947		Q139	F-7
D948		Q140	F-7
D949		Q141	F-7
D950		Q142	F-7
D951		Q143	F-7
D952		Q144	F-7
D953		Q145	F-7
D954		Q146	F-7
D955		Q147	F-7
D956		Q148	F-7
D957		Q149	F-7
D958		Q150	F-7
D959		Q151	F-7
D960		Q152	F-7
D961		Q153	F-7
D962		Q154	F-7
D963		Q155	F-7
D964		Q156	F-7
D965		Q157	F-7
D966		Q158	F-7
D967		Q159	F-7
D968		Q160	F-7
D969		Q161	F-7
D970		Q162	F-7
D971		Q163	F-7
D972		Q164	F-7
D973		Q165	F-7
D974		Q166	F-7
D975		Q167	F-7
D976		Q168	F-7
D977		Q169	F-7
D978		Q170	F-7
D979		Q171	F-7
D980		Q172	F-7
D981		Q173	F-7
D982		Q174	F-7
D983		Q175	F-7
D984		Q176	F-7
D985		Q177	F-7
D986		Q178	F-7
D987		Q179	F-7
D988		Q180	F-7
D989		Q181	F-7
D990		Q182	F-7
D991		Q183	F-7
D992		Q184	F-7
D993		Q185	F-7
D994		Q186	F-7
D995		Q187	F-7
D996		Q188	F-7
D997		Q189	F-7
D998		Q190	F-7
D999		Q191	F-7
D1000		Q192	F-7

Note:

- : parts extracted from the component side.
- : parts mounted on the conductor side.
- ▨ : Pattern from the side which enables seeing.
- Abbreviation
 - G : German
 - IT : Italian
 - AUS : Australian
 - EE : East European
 - MX : Mexican
 - AR : Argentine
 - AEP2 : AEP model with power source for PS-LX56P.
 - N500 : STR-N500
 - N600 : STR-N600

3-4. PRINTED WIRING BOARD - PANEL SECTION -



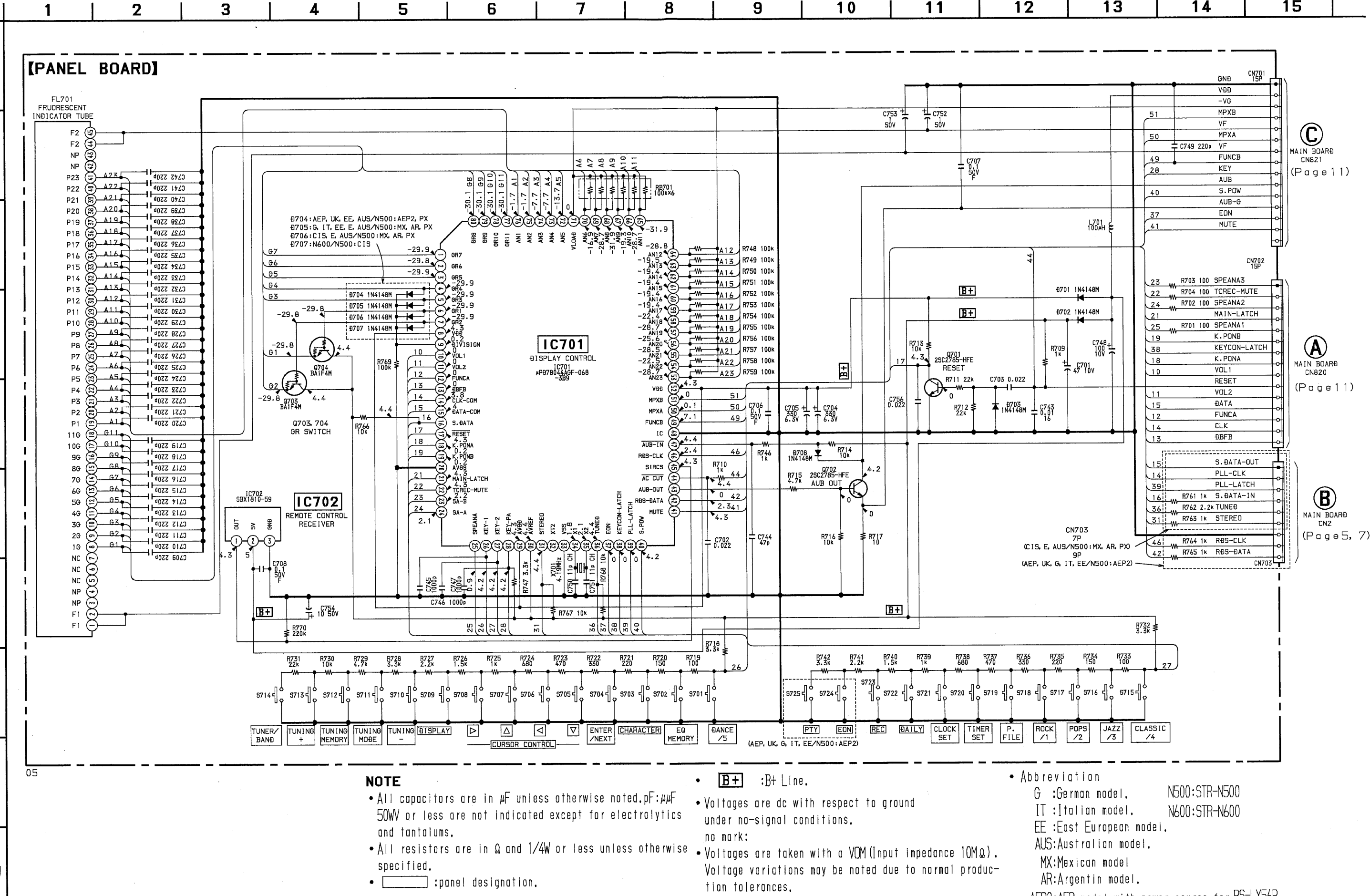
• Semiconductor Location

Ref. No.	Location
D701	B-10
D702	B-10
D703	B-6
D704	B-6
D705	B-6
D706	B-6
D707	B-6
D708	C-9
IC701	C-7
IC702	A-11
Q701	B-4
Q702	C-9
Q703	B-6
Q704	B-6

Note:

- : parts extracted from the component side.
- : parts mounted on the conductor side.
- ▨ : Pattern from the side which enables seeing.
- Abbreviation
 - G : German
 - IT : Italian
 - AUS : Australian
 - EE : East European
 - MX : Mexican
 - AR : Argentine
 - AEP2 : AEP model with power source for PS-LX56P.
 - N500 : STR-N500
 - N600 : STR-N600

3-5. SCHEMATIC DIAGRAM - PANEL SECTION -



NOTE

- All capacitors are in μF unless otherwise noted, pF: μF 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4W$ or less unless otherwise specified.
- : panel designation.
- B+ : B+ Line.
- Voltages are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (Input impedance $10M\Omega$). Voltage variations may be noted due to normal production tolerances.

• Abbreviation

G : German model.	N500:STR-N500
IT : Italian model.	N600:STR-N600
EE : East European model.	
AUS: Australian model.	
MX: Mexican model	
AR: Argentine model.	
AEP2: AEP model with power source for PS-LX56P	

3-6. IC PIN FUNCTION DESCRIPTION

DISPLAY BOARD IC701 μ PD78044AGF-068-3B9 (DISPLAY CONTROL)

Pin No.	Pin Name	I/O	Function
1-5	GR7-GR3	O	FL grid signal output.
6, 7	GR1, 2	O	
8	VDD	—	Power supply. (+B)
9	DIVISION	I	Division select input.
10	VOL 1	O	Volume encoder signal output.
11	VOL 2	O	
12	FUNCA	O	Input selector control signal output.
13	DBFB	O	DBFB switching signal output.
14	CLK-COM	O	Serial clock output. (LC72130, M62423)
15	DATA-COM	O	Serial data output. (LC72130, M62423)
16	S. DATA	I	Serial data input. (LC72130)
17	RESET	I	Reset signal input.
18	K. PONA	O	Not used.
19	K. PONB	O	
20	AVSS	—	Power supply. (GND)
21	MAIN-LATCH	O	Serial latch output. (M62423)
22	TCREC-MUTE	O	Mute signal for TC REC.
23	SA-B	O	Not used.
24	SA-A	O	
25	SPEANA	I	Control signal input for spectram analyzer.
26, 27	KEY-I, 2	I	Key matrix input.
28	KEY-PA	I	Key matrix input.
29	AVDD	—	Power supply. (GND)
30	AVREF	—	A/D converter. Reference terminal.
31	STEREO	I	Stereo detection signal from tuner.
32	XT2	—	Not used.
33	VSS	—	Power supply. (GND)
34	X1	—	X'tal (4.19 MHz)
35	X2	—	
36	TUNED	I	Tuned detection signal from tuner.
37	EON	O	Tuner block power control output.
38	KEYCON-LATCH	O	Latch signal for M65840.
39	PLL-LATCH	O	Latch signal for LC72130.
40	S. POW	O	System power on signal output.

Pin No.	Pin Name	I/O	Function
41	MUTE	O	Mute signal for AMP.
42	RDS-DATA	I	RDS data input. (SAA6579T)
43	AUB-OUT	O	AUBUS output.
44	$\overline{\text{AC CUT}}$	I	Power detect input terminal.
45	SIRCS	I	SIRCS signal input.
46	RDS-CLK	I	RDS clock input. (SAA6579T)
47	$\overline{\text{AUB-IN}}$	I	AUBUS input.
48	IC	—	(Connect to GND.)
49	FUNCB	O	Input selector control signal output.
50, 51	MPXA/B	O	Control signal output for MPX.
52	VDD	—	Power supply. (+B)
53-70	AN23-6	O	FL segment signal output.
71	VLOAD	—	Driving power for FL display panel.
72-76	AN5-1	O	FL segment signal output.
77-80	GR11-8	O	FL grid signal output.

SECTION 4

EXPLODED VIEW

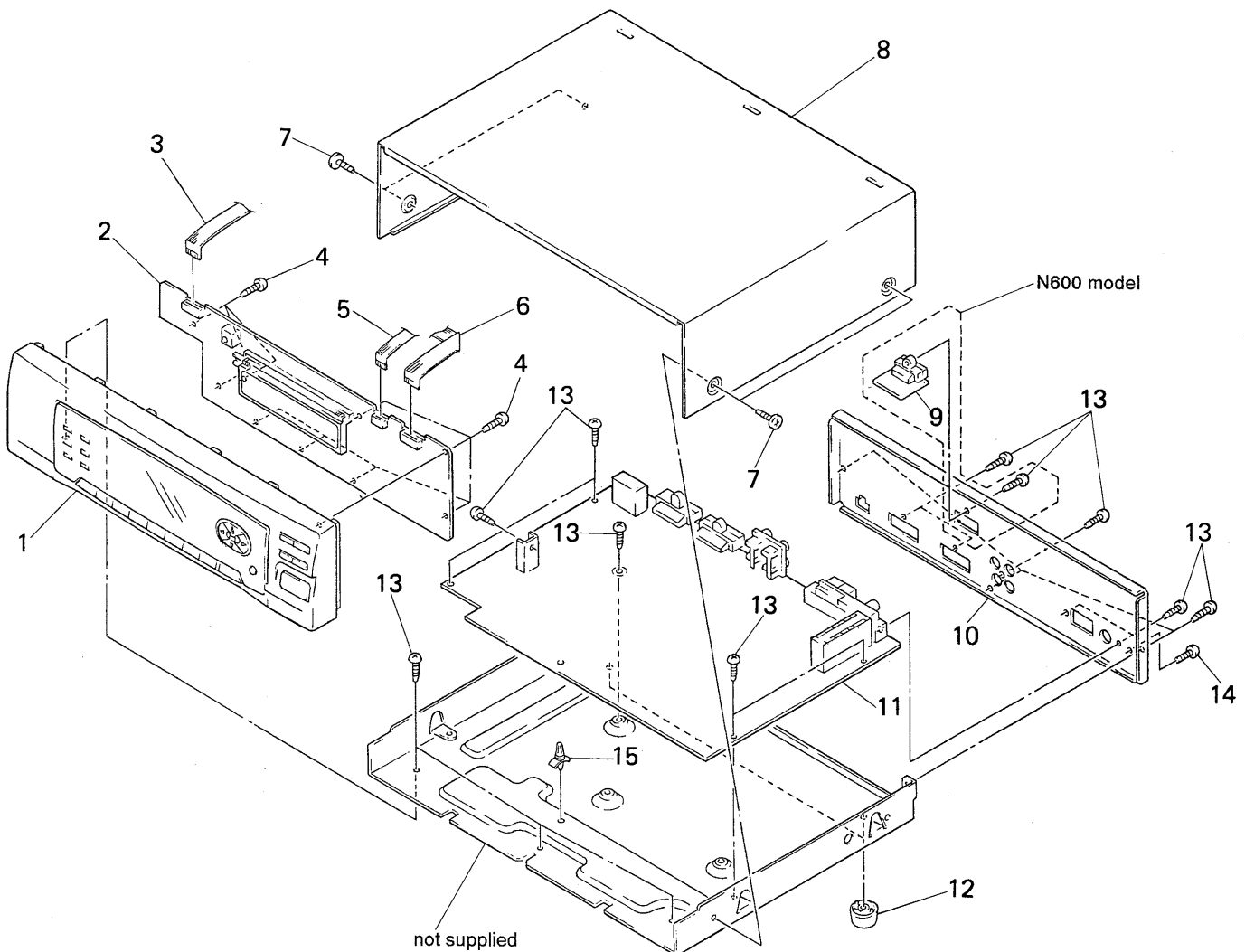
NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
 - Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE) ... (RED)

↑
Parts Color

↑
Cabinet's Color
 - Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 - The mechanical parts with no reference number in the exploded views are not supplied.
 - Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.
- Abbreviations
 IT: Italian G: German EE: East European AEP: AEP model without power source for PS-LX56P.
 MX: Mexican AUS: Australian AR: Argentina AEP2: AEP model with power source for PS-LX56P.

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.



Ref. No.	Part No.	Description	Remark
1	X-4945-599-1	PANEL ASSY, FRONT (N500:AEP, AEP2, UK, G, IT, EE)	
1	X-4945-600-1	PANEL ASSY, FRONT (N500:E, MX, AR)	
1	X-4945-602-1	PANEL ASSY, FRONT (N600:AEP, UK, G, IT, EE)	
1	X-4945-620-1	PANEL ASSY, FRONT (N500:CIS, AUS, PX)	
1	X-4945-965-1	PANEL ASSY, FRONT (N600:CIS, AUS)	
1	X-4946-159-1	PANEL ASSY, FRONT (N600:E)	
* 2	A-4377-261-A	PANEL BOARD, COMPLETE (N500:AEP, AEP2, UK)	
* 2	A-4377-818-A	PANEL BOARD, COMPLETE (N600:EE)	
* 2	A-4377-820-A	PANEL BOARD, COMPLETE (N600:CIS)	
* 2	A-4377-824-A	PANEL BOARD, COMPLETE (N500:AUS, PX)	
* 2	A-4377-827-A	PANEL BOARD, COMPLETE (N500:EE)	
* 2	A-4377-832-A	PANEL BOARD, COMPLETE (N600:AEP, UK)	
* 2	A-4377-833-A	PANEL BOARD, COMPLETE (N500:E, MX, AR)	
* 2	A-4377-835-A	PANEL BOARD, COMPLETE (N500:CIS)	
* 2	A-4377-919-A	PANEL BOARD, COMPLETE (N500:G, IT)	
* 2	A-4377-928-A	PANEL BOARD, COMPLETE (N600:G, IT)	
* 2	A-4378-420-A	PANEL BOARD, COMPLETE (N600:E)	
* 2	A-4378-423-A	PANEL BOARD, COMPLETE (N600:AUS)	
3	1-769-544-11	WIRE (FLAT TYPE) (15 CORE)	
4	4-951-620-01	SCREW (2. 6X8), +BVTP	
5	1-769-546-11	WIRE (FLAT TYPE) (7 CORE) (CIS, E, AUS/N500:MX, AR, PX)	
5	1-769-547-11	WIRE (FLAT TYPE) (9 CORE) (AEP, UK, G, IT, EE/N500:AEP2)	
6	1-769-545-11	WIRE (FLAT TYPE) (15 CORE)	
7	3-363-099-01	SCREW (CASE 3 TP2)	
8	4-969-777-11	CASE	
* 9	1-655-474-11	CONNECTOR BOARD (N600)	
* 10	4-969-784-02	PANEL, BACK (N500:UK)	
* 10	4-969-784-11	PANEL, BACK (N500:AEP, G, IT)	
* 10	4-969-784-21	PANEL, BACK (N500:EE, CIS)	
* 10	4-969-784-41	PANEL, BACK (N600:AEP, UK, G, IT)	

Ref. No.	Part No.	Description	Remark
* 10	4-969-784-51	PANEL, BACK (N600:EE, CIS)	
* 10	4-970-163-02	PANEL, BACK (N500:E)	
* 10	4-970-163-11	PANEL, BACK (N500:MX, AUS, PX)	
* 10	4-970-163-41	PANEL, BACK (N500:AR)	
* 10	4-970-163-51	PANEL, BACK (N600:E)	
* 10	4-970-163-61	PANEL, BACK (N600:AUS)	
* 10	4-973-530-01	PANEL, BACK (N500:AEP2)	
* 11	A-4377-390-A	MAIN BOARD, COMPLETE (N500:AEP)	
* 11	A-4377-391-A	MAIN BOARD, COMPLETE (N500:CIS)	
* 11	A-4377-392-A	MAIN BOARD, COMPLETE (N500:E)	
* 11	A-4377-394-A	MAIN BOARD, COMPLETE (N600:AEP, UK)	
* 11	A-4377-819-A	MAIN BOARD, COMPLETE (N600:EE)	
* 11	A-4377-821-A	MAIN BOARD, COMPLETE (N600:CIS)	
* 11	A-4377-825-A	MAIN BOARD, COMPLETE (N500:MX, AR, AUS, PX)	
* 11	A-4377-828-A	MAIN BOARD, COMPLETE (N500:EE)	
* 11	A-4377-830-A	MAIN BOARD, COMPLETE (N500:UK)	
* 11	A-4377-920-A	MAIN BOARD, COMPLETE (N500:G, IT)	
* 11	A-4377-922-A	MAIN BOARD, COMPLETE (N500:AEP2)	
* 11	A-4377-929-A	MAIN BOARD, COMPLETE (N600:G, IT)	
* 11	A-4378-421-A	MAIN BOARD, COMPLETE (N600:E, AUS)	
12	X-4941-228-1	FOOT ASSY	
13	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
14	7-682-548-04	SCREW +BVTT 3X8 (S)	
15	4-924-098-21	HOLDER, PC BOARD	

SECTION 5 ELECTRICAL PARTS LIST

CONNECTOR

MAIN

NOTE:

● Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.

● -XX and -X mean standardized parts, so they may have some difference from the original one.

RESISTORS

All resistors are in ohms.

METAL: Metal-film resistor.

METAL OXIDE: Metal oxide-film resistor.

F: nonflammable

Abbreviations

IT: Italian

G: German

EE: East European

AEP: AEP model without power source for PS-LX56P. /

MX: Mexican

AUS: Australian

AR: Argentin

AEP2: AEP model with power source for PS-LX56P.

● Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

SEMICONDUCTORS

In each case, u: μ , for example:

uA...: μ A... uPA...: μ PA...

uPB...: μ PB... uPC...: μ PC... uPD...: μ PD...

CAPACITORS

uF: μ F

COILS

uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-655-474-11	CONNECTOR BOARD (N600)		C12	1-126-934-11	ELECT	220uF 20% 16V
	*****			C13	1-162-306-11	CERAMIC	0.01uF 30% 16V
	< CAPACITOR >			C14	1-162-306-11	CERAMIC	0.01uF 30% 16V
C760	1-164-159-11	CERAMIC	0.1uF 50V (N600)	C15	1-164-159-11	CERAMIC	0.1uF 50V
C761	1-164-159-11	CERAMIC	0.1uF 50V (N600)	C16	1-126-964-11	ELECT	10uF 20% 50V
	< CONNECTOR >			C17	1-124-902-00	ELECT	0.47uF 20% 50V
CN813	1-770-249-41	HOUSING, CONNECTOR(PC BOARD)9P (N600)		C18	1-124-903-11	ELECT	1uF 20% 50V
	*****			C19	1-124-903-11	ELECT	1uF 20% 50V
	A-4377-390-A	MAIN BOARD, COMPLETE (N500:AEP)		C20	1-126-964-11	ELECT	10uF 20% 50V
*	A-4377-922-A	MAIN BOARD, COMPLETE (N500:AEP2)		C21	1-126-964-11	ELECT	10uF 20% 50V
*	A-4377-830-A	MAIN BOARD, COMPLETE (N500:UK)		C22	1-126-964-11	ELECT	10uF 20% 50V
				C23	1-126-964-11	ELECT	10uF 20% 50V
*	A-4377-920-A	MAIN BOARD, COMPLETE (N500:G, IT)		C24	1-137-436-11	FILM	0.0039uF 5% 50V
*	A-4377-828-A	MAIN BOARD, COMPLETE (N500:EE)		C25	1-137-436-11	FILM	0.0039uF 5% 50V
*	A-4377-391-A	MAIN BOARD, COMPLETE (N500:CIS)		C26	1-136-160-00	FILM	0.039uF 5% 50V
*	A-4377-392-A	MAIN BOARD, COMPLETE (N500:E)					(AEP, UK, G, IT, EE, CIS/N500:AEP2)
*	A-4377-825-A	MAIN BOARD, COMPLETE (N500:MX, AR, AUS, PX)		C26	1-136-158-00	FILM	0.027uF 5% 50V
							(E, AUS/N500:MX, AR, PX)
	A-4377-394-A	MAIN BOARD, COMPLETE (N600:AEP, UK)		C27	1-136-160-00	FILM	0.039uF 5% 50V
*	A-4377-929-A	MAIN BOARD, COMPLETE (N600:G, IT)					(AEP, UK, G, IT, EE, CIS/N500:AEP2)
*	A-4377-819-A	MAIN BOARD, COMPLETE (N600:EE)		C27	1-136-158-00	FILM	0.027uF 5% 50V
*	A-4377-821-A	MAIN BOARD, COMPLETE (N600:CIS)					(E, AUS/N500:MX, AR, PX)
*	A-4378-421-A	MAIN BOARD, COMPLETE (N600:E, AUS)		C28	1-124-903-11	ELECT	1uF 20% 50V
	*****			C29	1-162-294-31	CERAMIC	0.001uF 10% 50V
	1-537-770-11	TERMINAL BOARD, GROUND (N500:AEP, AEP2, G, IT)		C30	1-162-600-11	CERAMIC	0.0047uF 30% 16V
	< CAPACITOR >			C31	1-126-967-11	ELECT	47uF 20% 16V
C1	1-162-306-11	CERAMIC	0.01uF 30% 16V	C32	1-126-111-11	ELECT	3.3uF 20% 50V
C2	1-126-934-11	ELECT	220uF 20% 16V	C33	1-162-306-11	CERAMIC	0.01uF 30% 16V
C3	1-162-306-11	CERAMIC	0.01uF 30% 16V	C34	1-126-933-11	ELECT	100uF 20% 10V
C4	1-162-306-11	CERAMIC	0.01uF 30% 16V	C35	1-162-306-11	CERAMIC	0.01uF 30% 16V
C5	1-162-306-11	CERAMIC	0.01uF 30% 16V	C38	1-162-211-31	CERAMIC	33PF 5% 50V
C6	1-162-306-11	CERAMIC	0.01uF 30% 16V	C40	1-101-005-00	CERAMIC	0.22uF 50V
C7	1-162-306-11	CERAMIC	0.01uF 30% 16V	C41	1-164-159-11	CERAMIC	0.1uF 50V
C8	1-162-306-11	CERAMIC	0.01uF 30% 16V				(AEP, UK, EE, CIS/N500:AEP2)
C9	1-101-004-00	CERAMIC	0.01uF 50V	C42	1-162-196-31	CERAMIC	5.6PF 10% 50V
		(EE, CIS, E, AUS/N500:MX, AR, PX)					(AEP, UK, EE, CIS/N500:AEP2)
C11	1-162-306-11	CERAMIC	0.01uF 30% 16V	C42	1-162-198-31	CERAMIC	8.2PF 10% 50V
							(G, IT, E, AUS/N500:MX, AR, PX)
				C43	1-162-306-11	CERAMIC	0.01uF 30% 16V
				C44	1-102-120-00	CERAMIC	0.0018uF 10% 50V
							(AEP, UK, EE, CIS/N500:AEP2)

MAIN

Ref. No.	Part No.	Description	Remark		
C45	1-162-301-11	CERAMIC	0.0015uF	30%	16V (AEP, UK, EE, CIS/N500:AEP2)
C46	1-101-005-00	CERAMIC	0.022uF	50V	(AEP, UK, EE, CIS/N500:AEP2)
C51	1-164-031-11	CERAMIC	33PF	5%	50V
C52	1-164-027-11	CERAMIC	22PF	5%	50V
C53	1-162-306-11	CERAMIC	0.01uF	30%	16V
C54	1-126-967-11	ELECT	47uF	20%	16V
C55	1-162-294-31	CERAMIC	0.001uF	10%	50V
C56	1-162-306-11	CERAMIC	0.01uF	30%	16V
C57	1-162-306-11	CERAMIC	0.01uF	30%	16V
C58	1-162-306-11	CERAMIC	0.01uF	30%	16V
C61	1-124-925-11	ELECT	2.2uF	20%	100V
C62	1-164-159-11	CERAMIC	0.1uF	50V	
C63	1-162-306-11	CERAMIC	0.01uF	30%	16V
C65	1-162-306-11	CERAMIC	0.01uF	30%	16V
C68	1-162-306-11	CERAMIC	0.01uF	30%	16V
C69	1-126-934-11	ELECT	220uF	20%	16V
C71	1-136-173-00	FILM	0.47uF	5%	50V (AEP, UK, EE, CIS/N500:AEP2)
C72	1-161-494-00	CERAMIC	0.022uF	25V	(AEP, UK, EE, CIS/N500:AEP2)
C73	1-161-494-00	CERAMIC	0.022uF	25V	(AEP, UK, EE, CIS/N500:AEP2)
C95	1-124-907-11	ELECT	10uF	20%	50V(CIS)
C96	1-124-907-11	ELECT	10uF	20%	50V(CIS)
C101	1-162-294-31	CERAMIC	0.001uF	10%	50V(CIS)
C102	1-130-014-00	FILM	470PF	5%	50V(CIS)
C103	1-124-902-00	ELECT	0.47uF	20%	50V(CIS)
C104	1-124-902-00	ELECT	0.47uF	20%	50V(CIS)
C105	1-164-098-11	CERAMIC	0.047uF	12V	(CIS)
C106	1-124-903-11	ELECT	1uF	20%	50V(CIS)
C107	1-162-288-31	CERAMIC	330PF	10%	50V(CIS)
C110	1-130-471-00	MYLAR	0.001uF	5%	50V(CIS)
C111	1-130-471-00	MYLAR	0.001uF	5%	50V(CIS)
C112	1-130-736-11	FILM	0.01uF	5%	50V(CIS)
C113	1-130-736-11	FILM	0.01uF	5%	50V(CIS)
C114	1-124-903-11	ELECT	1uF	20%	50V(CIS)
C115	1-124-903-11	ELECT	1uF	20%	50V(CIS)
C116	1-124-903-11	ELECT	1uF	20%	50V(CIS)
C119	1-104-664-11	ELECT	47uF	20%	16V(CIS)
C120	1-162-306-11	CERAMIC	0.01uF	30%	16V(CIS)
C123	1-162-306-11	CERAMIC	0.01uF	30%	16V(CIS)
C124	1-162-306-11	CERAMIC	0.01uF	30%	16V(CIS)
C125	1-104-664-11	ELECT	47uF	20%	16V(CIS)
C126	1-124-903-11	ELECT	1uF	20%	50V(CIS)
C127	1-124-903-11	ELECT	1uF	20%	50V(CIS)
C128	1-104-663-11	ELECT	33uF	20%	16V(CIS)
C201	1-162-291-31	CERAMIC	560PF	10%	50V (AEP, UK, G, IT, EE/N500:AEP2)

Ref. No.	Part No.	Description	Remark		
C202	1-162-306-11	CERAMIC	0.01uF	30%	16V (AEP, UK, G, IT, EE/N500:AEP2)
C203	1-126-964-11	ELECT	10uF	20%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C204	1-162-288-31	CERAMIC	330PF	10%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C205	1-126-964-11	ELECT	10uF	20%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C206	1-124-925-11	ELECT	2.2uF	20%	100V (AEP, UK, G, IT, EE/N500:AEP2)
C207	1-162-306-11	CERAMIC	0.01uF	30%	16V (AEP, UK, G, IT, EE/N500:AEP2)
C208	1-162-291-31	CERAMIC	560PF	10%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C209	1-102-527-11	CERAMIC	82PF	5%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C210	1-101-880-00	CERAMIC	47PF	5%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C211	1-162-306-11	CERAMIC	0.01uF	30%	16V (AEP, UK, G, IT, EE/N500:AEP2)
C212	1-126-964-11	ELECT	10uF	20%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C213	1-162-294-31	CERAMIC	0.001uF	10%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C214	1-162-294-31	CERAMIC	0.001uF	10%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C215	1-162-306-11	CERAMIC	0.01uF	30%	16V (AEP, UK, G, IT, EE, CIS/N500:AEP2)
C301	1-162-288-31	CERAMIC	330PF	10%	50V
C303	1-162-282-31	CERAMIC	100PF	10%	50V
C304	1-162-282-31	CERAMIC	100PF	10%	50V
C305	1-126-963-11	ELECT	4.7uF	20%	50V
C306	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C307	1-162-301-11	CERAMIC	0.0015uF	30%	16V
C308	1-124-902-00	ELECT	0.47uF	20%	50V (N500)
C308	1-124-464-11	ELECT	0.22uF	20%	50V (N600)
C309	1-126-967-11	ELECT	47uF	20%	16V
C310	1-162-286-21	CERAMIC	220PF	10%	50V
C311	1-162-282-31	CERAMIC	100PF	10%	50V
C312	1-162-282-31	CERAMIC	100PF	10%	50V
C314	1-124-903-11	ELECT	1uF	20%	50V
C315	1-124-903-11	ELECT	1uF	20%	50V
C320	1-162-306-11	CERAMIC	0.01uF	30%	16V
C321	1-162-306-11	CERAMIC	0.01uF	30%	16V
C351	1-162-288-31	CERAMIC	330PF	10%	50V
C353	1-162-282-31	CERAMIC	100PF	10%	50V
C354	1-162-282-31	CERAMIC	100PF	10%	50V
C355	1-126-963-11	ELECT	4.7uF	20%	50V
C356	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C357	1-162-301-11	CERAMIC	0.0015uF	30%	16V
C358	1-124-902-00	ELECT	0.47uF	20%	50V (N500)

Ref. No.	Part No.	Description	Remark			
C358	1-124-464-11	ELECT	0.22uF	20%	50V	(N600)
C359	1-126-967-11	ELECT	47uF	20%	16V	
C360	1-162-286-21	CERAMIC	220PF	10%	50V	
C501	1-136-162-00	FILM	0.056uF	5%	50V	
C502	1-136-156-00	FILM	0.018uF	5%	50V	
C503	1-124-903-11	ELECT	1uF	20%	50V	
C504	1-162-302-11	CERAMIC	0.0022uF	30%	16V	
C505	1-136-162-00	FILM	0.056uF	5%	50V	
C506	1-162-600-11	CERAMIC	0.0047uF	30%	16V	
C507	1-136-169-00	FILM	0.22uF	5%	50V	
C508	1-136-162-00	FILM	0.056uF	5%	50V	
C509	1-136-162-00	FILM	0.056uF	5%	50V	
C510	1-126-964-11	ELECT	10uF	20%	50V	
C511	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C533	1-126-964-11	ELECT	10uF	20%	50V	
C534	1-126-964-11	ELECT	10uF	20%	50V	
C535	1-164-159-11	CERAMIC	0.1uF		50V	
C536	1-164-159-11	CERAMIC	0.1uF		50V	
C537	1-162-286-21	CERAMIC	220PF	10%	50V	
C552	1-136-156-00	FILM	0.018uF	5%	50V	
C553	1-124-903-11	ELECT	1uF	20%	50V	
C554	1-162-302-11	CERAMIC	0.0022uF	30%	16V	
C555	1-136-162-00	FILM	0.056uF	5%	50V	
C556	1-162-600-11	CERAMIC	0.0047uF	30%	16V	
C557	1-136-169-00	FILM	0.22uF	5%	50V	
C558	1-136-162-00	FILM	0.056uF	5%	50V	
C801	1-124-122-11	ELECT	100uF	20%	50V	
C802	1-128-576-11	ELECT	100uF	20%	63V	
C803	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C804	1-128-552-51	ELECT	47uF	20%	63V	
C805	1-124-122-11	ELECT	100uF	20%	50V	
C806	1-126-971-11	ELECT	470uF	20%	50V	
C807	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C808	1-124-925-11	ELECT	2.2uF	20%	100V	
C809	1-124-925-11	ELECT	2.2uF	20%	100V	
C811	1-126-944-11	ELECT	3300uF	20%	25V	
C812	1-126-944-11	ELECT	3300uF	20%	25V	
C813	1-101-004-00	CERAMIC	0.01uF		50V	
C814	1-101-004-00	CERAMIC	0.01uF		50V	
C815	1-126-964-11	ELECT	10uF	20%	50V	
C816	1-126-964-11	ELECT	10uF	20%	50V	
C817	1-126-933-11	ELECT	100uF	20%	16V	
C818	1-126-933-11	ELECT	100uF	20%	16V	
C831	1-126-964-11	ELECT	10uF	20%	50V	
C832	1-124-463-00	ELECT	0.1uF	20%	50V	
C835	1-126-964-11	ELECT	10uF	20%	50V	
C837	1-126-933-11	ELECT	100uF	20%	10V	
C838	1-124-122-11	ELECT	100uF	20%	50V	

Ref. No.	Part No.	Description	Remark			
C839	1-124-477-11	ELECT	47uF	20%	25V	
C840	1-126-967-11	ELECT	47uF	20%	50V	
C841	1-124-478-11	ELECT	100uF	20%	25V	
C842	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C843	1-126-943-11	ELECT	2200uF	20%	25V	
C844	1-124-477-11	ELECT	47uF	20%	25V	(N500:AEP2, UK, E)
C845	1-164-159-11	CERAMIC	0.1uF		50V	
C846	1-124-477-11	ELECT	47uF	20%	25V	
C851	1-136-177-00	FILM	1uF	5%	50V	
C852	1-136-169-00	FILM	0.22uF	5%	50V	
C853	1-124-903-11	ELECT	1uF	20%	50V	
C854	1-136-169-00	FILM	0.22uF	5%	50V	
C855	1-136-162-00	FILM	0.056uF	5%	50V	
C856	1-124-903-11	ELECT	1uF	20%	50V	
C857	1-136-161-00	FILM	0.047uF	5%	50V	
C858	1-136-153-00	FILM	0.01uF	5%	50V	
C859	1-124-903-11	ELECT	1uF	20%	50V	
C860	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C861	1-124-903-11	ELECT	1uF	20%	50V	
C862	1-126-964-11	ELECT	10uF	20%	50V	
C863	1-126-964-11	ELECT	10uF	20%	50V	
C871	1-126-964-11	ELECT	10uF	20%	50V	
C872	1-124-925-11	ELECT	2.2uF	20%	100V	
C880	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C883	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C884	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C885	1-164-159-11	CERAMIC	0.1uF		50V	(N500:AEP2, UK, E)
C886	1-162-282-31	CERAMIC	100PF	10%	50V	(N600)
C887	1-161-494-00	CERAMIC	0.022uF		25V	
C888	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C890	1-164-159-11	CERAMIC	0.1uF		50V	(N500:E, MX, AR, AU, PX)

< FILTER >

CF1	1-567-389-11	FILTER, CERAMIC				
CF2	1-760-393-11	FILTER, CERAMIC	(AEP, UK, G, IT/N500:AEP2)			
CF3	1-760-393-11	FILTER, CERAMIC	(AEP, UK, G, IT/N500:AEP2)			
CF3	1-567-389-11	FILTER, CERAMIC	(EE, CIS, E, AUS/N500:MX, AR, PX)			
CF4	1-760-220-11	FILTER, CERAMIC	(10.7MHz)			
CF5	1-527-981-00	FILTER, CERAMIC	(450KHz)			
CF6	1-577-075-11	OSCILLATOR, CERAMIC	(456KHz)			

< CONNECTOR >

* CN2	1-568-828-11	SOCKET, CONNECTOR 9P	(AEP, UK, G, IT, EE/N500:AEP2)			
* CN2	1-568-826-11	SOCKET, CONNECTOR 7P	(CIS, E, AUS/N500:MX, AR, PX)			

MAIN

Ref. No.	Part No.	Description	Remark
* CN801	1-568-936-11	PIN, CONNECTOR 9P (N600)	
CN802	1-764-017-11	HOUSING, CONNECTOR(PC BOARD) 17P	
CN803	1-770-248-31	HOUSING, CONNECTOR(PC BOARD) 16P	
* CN805	1-566-210-11	PIN, CONNECTOR 3P (POWER SOURCE)	(N500:AEP2, UK, E)
* CN820	1-568-834-11	SOCKET, CONNECTOR 15P	
* CN821	1-568-834-11	SOCKET, CONNECTOR 15P	
< TRIMMER >			
CT101	1-141-260-00	CAP, TRIMMER 50PF (CIS)	
< DIODE >			
D1	8-719-987-63	DIODE 1N4148M	
D2	8-719-987-63	DIODE 1N4148M (CIS)	
D3	8-719-987-63	DIODE 1N4148M (CIS)	
D101	8-719-987-63	DIODE 1N4148M (CIS)	
D103	8-719-987-63	DIODE 1N4148M (CIS)	
D104	8-719-987-63	DIODE 1N4148M (CIS)	
D105	8-719-987-63	DIODE 1N4148M (CIS)	
D801	8-719-024-99	DIODE 11ES2-NTA2B	
D802	8-719-024-99	DIODE 11ES2-NTA2B	
D803	8-719-024-99	DIODE 11ES2-NTA2B	
D804	8-719-024-99	DIODE 11ES2-NTA2B	
D805	8-719-024-99	DIODE 11ES2-NTA2B	
D806	8-719-024-99	DIODE 11ES2-NTA2B	
D807	8-719-934-22	DIODE HZS30-2L	
D808	8-719-933-48	DIODE HZS7B3L	
D809	8-719-987-63	DIODE 1N4148M	
D810	8-719-024-99	DIODE 11ES2-NTA2B	
D811	8-719-024-99	DIODE 11ES2-NTA2B	
D812	8-719-001-42	DIODE UZL-11M1	
D815	8-719-024-99	DIODE 11ES2-NTA2B	
D816	8-719-024-99	DIODE 11ES2-NTA2B	
D817	8-719-024-99	DIODE 11ES2-NTA2B	
D818	8-719-024-99	DIODE 11ES2-NTA2B	
D819	8-719-024-99	DIODE 11ES2-NTA2B	
D820	8-719-024-99	DIODE 11ES2-NTA2B	
D821	8-719-024-99	DIODE 11ES2-NTA2B	
D822	8-719-024-99	DIODE 11ES2-NTA2B	
D823	8-719-024-99	DIODE 11ES2-NTA2B (N500:AEP2, UK, E)	
D824	8-719-024-99	DIODE 11ES2-NTA2B (N500:AEP2, UK, E)	
D825	8-719-024-99	DIODE 11ES2-NTA2B (N500:AEP2, UK, E)	
D826	8-719-024-99	DIODE 11ES2-NTA2B	
D827	8-719-024-99	DIODE 11ES2-NTA2B	
D828	8-719-024-99	DIODE 11ES2-NTA2B	
D829	8-719-024-99	DIODE 11ES2-NTA2B	
D830	8-719-024-99	DIODE 11ES2-NTA2B	
D831	8-719-000-84	DIODE UZL-7M1	
D851	8-719-987-63	DIODE 1N4148M	

Ref. No.	Part No.	Description	Remark
D852	8-719-987-63	DIODE 1N4148M	
D853	8-719-987-63	DIODE 1N4148M	
D854	8-719-987-63	DIODE 1N4148M	
D871	8-719-987-63	DIODE 1N4148M	
D872	8-719-815-85	DIODE 1S1585	
< TERMINAL >			
EB801	1-537-770-11	TERMINAL BOARD, GROUND	(UK, EE, CIS, E, AUS, /N500:MX, AR, PX)
< FERRITE BEAD >			
FB801	1-412-473-21	INDUCTOR OUH (N600)	
< FRONT END >			
FE1	1-693-253-21	FRONT END (4 GANG)	(AEP, UK, G, IT/N500:AEP2)
FE1	1-693-244-21	FRONT END (3 GANG) (EE, CIS)	
FE1	1-693-090-51	FRONT END (FM) (2 GANG)	(E, AUS/N500:MX, AR, PX)
< IC >			
IC3	8-759-176-03	IC LA1835	
IC51	8-759-288-54	IC LC72130	
IC101	8-759-063-04	IC IR3R42 (CIS)	
IC102	8-759-140-53	IC uPD4053BC (CIS)	
IC201	8-759-634-51	IC M5218AP (AEP, UK, G, IT, EE/N500:AEP2)	
IC202	8-759-169-99	IC SAA6579 (AEP, UK, G, IT, EE/N500:AEP2)	
IC301	8-759-000-48	IC MC14052BCP	
IC302	8-759-140-53	IC uPD4053BC	
IC303	8-759-634-51	IC M5218AP	
IC401	8-759-634-51	IC M5218AP	
IC501	8-759-291-98	IC M62423FP	
IC502	8-759-000-49	IC MC14066BCP	
IC801	8-759-820-13	IC L78MR06	
IC802	8-759-604-86	IC M5F7807L	
IC803	8-759-604-90	IC M5F7907L	
IC804	8-759-231-53	IC TA7805S	
IC850	8-759-634-51	IC M5218AP	
IC851	8-759-000-48	IC MC14052BCP	
< IFT >			
IFT1	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)	
< JACK >			
* J801	1-580-912-11	JACK, PIN 4P (PHONO/AUX IN)	(N600:AEP, G, IT/N500)
J801	1-580-905-11	JACK, PIN (PHONO/AUX IN)	(N600:UK, EE, CIS, E, AUS)

Ref. No.	Part No.	Description	Remark
< COIL >			
L1	1-407-500-00	INDUCTOR 4.7mH (AEP, UK, EE, CIS/N500:AEP2)	
L1	1-410-688-31	INDUCTOR 1.5mH (G, IT, E, AUS/N500:MX, AR, PX)	
L2	1-410-524-41	INDUCTOR 220uH (AEP/N500:AEP2)	
L2	1-410-525-11	INDUCTOR 220uH (UK, EE, CIS)	
L31	1-414-142-11	INDUCTOR 1uH	
L101	1-409-497-11	COIL (FILTER) (CIS)	
< FILTER >			
LPF1	1-239-597-11	FILTER, LOW PASS	
LPF2	1-239-597-11	FILTER, LOW PASS	
< TRANSISTOR >			
Q1	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q2	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q3	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q4	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q5	8-729-422-57	TRANSISTOR UN4111	
Q6	8-729-119-76	TRANSISTOR 2SA1175-HFE (AEP, UK, EE, CIS/N500:AEP2)	
Q7	8-729-119-76	TRANSISTOR 2SA1175-HFE (AEP, UK, EE, CIS/N500:AEP2)	
Q8	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE, CIS/N500:AEP2)	
Q9	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE, CIS/N500:AEP2)	
Q10	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE, CIS/N500:AEP2)	
Q11	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE, CIS/N500:AEP2)	
Q101	8-729-422-57	TRANSISTOR UN4111 (CIS)	
Q102	8-729-900-80	TRANSISTOR DTC114ES (CIS)	
Q103	8-729-900-80	TRANSISTOR DTC114ES (CIS)	
Q320	8-729-900-80	TRANSISTOR DTC114ES	
Q501	8-729-900-80	TRANSISTOR DTC114ES	
Q502	8-729-422-57	TRANSISTOR UN4111	
Q503	8-729-422-57	TRANSISTOR UN4111	
Q504	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q505	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q801	8-729-111-29	TRANSISTOR 2SD1616A-K	
Q802	8-729-801-84	TRANSISTOR 2SB1013-4 (N600)	
Q803	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q804	8-729-030-19	TRANSISTOR 2SB1640	
Q805	8-729-209-15	TRANSISTOR 2SD2012	
Q806	8-729-900-80	TRANSISTOR DTC114ES	
Q807	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q808	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q810	8-729-422-57	TRANSISTOR UN4111	

Ref. No.	Part No.	Description	Remark
Q811	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q812	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q814	8-729-422-57	TRANSISTOR UN4111	
Q815	8-729-900-80	TRANSISTOR DTC114ES	
Q816	8-729-141-30	TRANSISTOR 2SC3623A-LK (EXCEPT CIS)	
< RESISTOR >			
R4	1-249-401-11	CARBON 47 5% 1/4W	
R5	1-249-411-11	CARBON 330 5% 1/4W	
R6	1-249-433-11	CARBON 22K 5% 1/4W	
R7	1-249-411-11	CARBON 330 5% 1/4W	
R8	1-249-411-11	CARBON 330 5% 1/4W	
R9	1-249-433-11	CARBON 22K 5% 1/4W	
R10	1-249-411-11	CARBON 330 5% 1/4W	
R11	1-249-433-11	CARBON 22K 5% 1/4W (AEP, UK, G, IT, EE, CIS/N500:AEP2)	
R11	1-249-411-11	CARBON 330 5% 1/4W (E, AUS/N500:MX, AR, PX)	
R12	1-249-411-11	CARBON 330 5% 1/4W	
R13	1-249-411-11	CARBON 330 5% 1/4W (AEP, UK, G, IT, EE, CIS/N500:AEP2)	
R14	1-249-433-11	CARBON 22K 5% 1/4W (AEP, UK, G, IT, EE, CIS/N500:AEP2)	
R15	1-249-405-11	CARBON 100 5% 1/4W	
R16	1-249-442-11	CARBON 510 5% 1/4W	
R17	1-249-403-11	CARBON 68 5% 1/4W	
R18	1-249-423-11	CARBON 3.3K 5% 1/4W	
R19	1-249-441-11	CARBON 100K 5% 1/4W	
R20	1-249-429-11	CARBON 10K 5% 1/4W	
R25	1-249-429-11	CARBON 10K 5% 1/4W	
R26	1-249-429-11	CARBON 10K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	
R28	1-249-401-11	CARBON 47 5% 1/4W	
R40	1-249-399-11	CARBON 33 5% 1/4W	
R41	1-249-429-11	CARBON 10K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	
R42	1-249-429-11	CARBON 10K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	
R43	1-249-441-11	CARBON 100K 5% 1/4W	
R44	1-249-425-11	CARBON 4.7K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	
R45	1-249-437-11	CARBON 47K 5% 1/4W	
R46	1-247-903-00	CARBON 1M 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	
R47	1-249-433-11	CARBON 22K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	
R48	1-249-437-11	CARBON 47K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	
R50	1-249-401-11	CARBON 47 5% 1/4W	
R52	1-249-429-11	CARBON 10K 5% 1/4W	
R53	1-249-423-11	CARBON 3.3K 5% 1/4W	
R55	1-249-417-11	CARBON 1K 5% 1/4W	
R56	1-249-417-11	CARBON 1K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R57	1-249-417-11	CARBON	1K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	R303	1-249-437-11	CARBON	47K 5% 1/4W
R58	1-249-417-11	CARBON	1K 5% 1/4W	R304	1-249-416-11	CARBON	820 5% 1/4W
R59	1-249-417-11	CARBON	1K 5% 1/4W	R305	1-247-897-11	CARBON	560K 5% 1/4W
R60	1-249-405-11	CARBON	100 5% 1/4W	R306	1-249-437-11	CARBON	47K 5% 1/4W
R61	1-249-423-11	CARBON	3. 3K 5% 1/4W	R307	1-249-422-11	CARBON	2. 7K 5% 1/4W (N500)
R62	1-249-425-11	CARBON	4. 7K 5% 1/4W	R307	1-249-409-11	CARBON	220 5% 1/4W (N600)
R63	1-249-425-11	CARBON	4. 7K 5% 1/4W	R308	1-249-427-11	CARBON	6. 8K 5% 1/4W (N500)
R64	1-249-425-11	CARBON	4. 7K 5% 1/4W	R308	1-249-441-11	CARBON	100K 5% 1/4W (N600)
R65	1-247-807-31	CARBON	100 5% 1/4W	R309	1-249-409-11	CARBON	220 5% 1/4W
R66	1-249-425-11	CARBON	4. 7K 5% 1/4W	R310	1-249-425-11	CARBON	4. 7K 5% 1/4W (N500)
R71	1-249-423-11	CARBON	3. 3K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	R310	1-249-417-11	CARBON	1K 5% 1/4W (N600)
R72	1-249-433-11	CARBON	22K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	R311	1-249-431-11	CARBON	15K 5% 1/4W (N500)
R73	1-249-425-11	CARBON	4. 7K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	R311	1-249-441-11	CARBON	100K 5% 1/4W (N600)
R74	1-249-425-11	CARBON	4. 7K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	R312	1-249-417-11	CARBON	1K 5% 1/4W
R75	1-249-425-11	CARBON	4. 7K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	R313	1-249-417-11	CARBON	1K 5% 1/4W
R101	1-249-432-11	CARBON	18K 5% 1/4W (CIS)	R314	1-249-417-11	CARBON	1K 5% 1/4W
R102	1-249-435-11	CARBON	33K 5% 1/4W (CIS)	R315	1-247-807-31	CARBON	100 5% 1/4W
R103	1-249-427-11	CARBON	6. 8K 5% 1/4W (CIS)	R316	1-249-417-11	CARBON	1K 5% 1/4W
R104	1-247-858-11	CARBON	13K 5% 1/4W (CIS)	R317	1-249-417-11	CARBON	1K 5% 1/4W
R105	1-249-417-11	CARBON	1K 5% 1/4W (CIS)	R318	1-249-419-11	CARBON	1. 5K 5% 1/4W
R106	1-249-417-11	CARBON	1K 5% 1/4W (CIS)	R319	1-249-417-11	CARBON	1K 5% 1/4W
R107	1-249-441-11	CARBON	100K 5% 1/4W (CIS)	R320	1-249-429-11	CARBON	10K 5% 1/4W
R108	1-249-440-11	CARBON	82K 5% 1/4W (CIS)	R321	1-249-429-11	CARBON	10K 5% 1/4W
R109	1-249-437-11	CARBON	47K 5% 1/4W (CIS)	R322	1-249-429-11	CARBON	10K 5% 1/4W
R110	1-249-429-11	CARBON	10K 5% 1/4W (CIS)	R323	1-249-429-11	CARBON	10K 5% 1/4W
R111	1-249-429-11	CARBON	10K 5% 1/4W (CIS)	R324	1-249-423-11	CARBON	3. 3K 5% 1/4W (N500)
R114	1-249-426-11	CARBON	5. 6K 5% 1/4W (CIS)	R324	1-249-431-11	CARBON	15K 5% 1/4W (N600)
R115	1-249-426-11	CARBON	5. 6K 5% 1/4W (CIS)	R327	1-249-417-11	CARBON	1K 5% 1/4W (EXCEPT CIS)
R116	1-249-441-11	CARBON	100K 5% 1/4W (CIS)	R328	1-249-429-11	CARBON	10K 5% 1/4W
R117	1-249-441-11	CARBON	100K 5% 1/4W (CIS)	R329	1-249-429-11	CARBON	10K 5% 1/4W
R118	1-249-429-11	CARBON	10K 5% 1/4W (CIS)	R342	1-249-441-11	CARBON	100K 5% 1/4W
R119	1-249-429-11	CARBON	10K 5% 1/4W (CIS)	R343	1-249-441-11	CARBON	100K 5% 1/4W
R121	1-249-434-11	CARBON	27K 5% 1/4W (CIS)	R345	1-247-807-31	CARBON	100 5% 1/4W
R122	1-249-441-11	CARBON	100K 5% 1/4W (CIS)	R346	1-247-807-31	CARBON	100 5% 1/4W
R201	1-249-441-11	CARBON	100K 5% 1/4W (AEP, UK, G, IT, EE/N500:AEP2)	R351	1-249-417-11	CARBON	1K 5% 1/4W
R202	1-249-441-11	CARBON	100K 5% 1/4W (AEP, UK, G, IT, EE/N500:AEP2)	R352	1-249-417-11	CARBON	1K 5% 1/4W
R203	1-249-433-11	CARBON	22K 5% 1/4W (AEP, UK, G, IT, EE/N500:AEP2)	R353	1-249-437-11	CARBON	47K 5% 1/4W
R204	1-249-426-11	CARBON	5. 6K 5% 1/4W (AEP, UK, G, IT, EE/N500:AEP2)	R354	1-249-416-11	CARBON	820 5% 1/4W
R205	1-247-807-31	CARBON	100 5% 1/4W (AEP, UK, G, IT, EE/N500:AEP2)	R355	1-247-897-11	CARBON	560K 5% 1/4W
R206	1-249-421-11	CARBON	2. 2K 5% 1/4W (AEP, UK, G, IT, EE/N500:AEP2)	R356	1-249-437-11	CARBON	47K 5% 1/4W
R301	1-249-417-11	CARBON	1K 5% 1/4W	R357	1-249-422-11	CARBON	2. 7K 5% 1/4W (N500)
R302	1-249-417-11	CARBON	1K 5% 1/4W	R357	1-249-409-11	CARBON	220 5% 1/4W (N600)
				R358	1-249-427-11	CARBON	6. 8K 5% 1/4W (N500)
				R358	1-249-441-11	CARBON	100K 5% 1/4W (N600)
				R359	1-249-409-11	CARBON	220 5% 1/4W
				R360	1-249-425-11	CARBON	4. 7K 5% 1/4W (N500)
				R360	1-249-417-11	CARBON	1K 5% 1/4W (N600)
				R361	1-249-431-11	CARBON	15K 5% 1/4W (N500)

Ref. No.	Part No.	Description	Remark		
R361	1-249-441-11	CARBON	100K	5%	1/4W (N600)
R364	1-249-417-11	CARBON	1K	5%	1/4W
R366	1-249-417-11	CARBON	1K	5%	1/4W
R367	1-249-417-11	CARBON	1K	5%	1/4W
R368	1-249-419-11	CARBON	1.5K	5%	1/4W
R369	1-249-417-11	CARBON	1K	5%	1/4W
R370	1-249-441-11	CARBON	100K	5%	1/4W
R371	1-247-883-00	CARBON	150K	5%	1/4W
R374	1-249-423-11	CARBON	3.3K	5%	1/4W (N500)
R374	1-249-431-11	CARBON	15K	5%	1/4W (N600)
R382	1-249-401-11	CARBON	47	5%	1/4W (N600)
R383	1-249-401-11	CARBON	47	5%	1/4W (N600)
R501	1-249-417-11	CARBON	1K	5%	1/4W
R502	1-249-417-11	CARBON	1K	5%	1/4W
R503	1-249-417-11	CARBON	1K	5%	1/4W
R504	1-249-441-11	CARBON	100K	5%	1/4W (N500)
R504	1-249-433-11	CARBON	22K	5%	1/4W (N600)
R505	1-249-426-11	CARBON	5.6K	5%	1/4W
R506	1-249-441-11	CARBON	100K	5%	1/4W
R510	1-249-417-11	CARBON	1K	5%	1/4W (N500)
R510	1-249-423-11	CARBON	3.3K	5%	1/4W (N600)
R554	1-249-441-11	CARBON	100K	5%	1/4W (N500)
R554	1-249-433-11	CARBON	22K	5%	1/4W (N600)
R555	1-249-426-11	CARBON	5.6K	5%	1/4W
R556	1-249-417-11	CARBON	1K	5%	1/4W
R557	1-247-887-00	CARBON	220K	5%	1/4W
R558	1-249-417-11	CARBON	1K	5%	1/4W
R559	1-247-887-00	CARBON	220K	5%	1/4W
R560	1-249-417-11	CARBON	1K	5%	1/4W (N500)
R560	1-249-423-11	CARBON	3.3K	5%	1/4W (N600)
R801	1-249-441-11	CARBON	100K	5%	1/4W
R805	1-249-421-11	CARBON	2.2K	5%	1/4W
△R806	1-212-869-00	FUSIBLE	33	5%	1/4W F
R807	1-260-070-11	CARBON	3.3	5%	1/2W
R808	1-215-871-11	METAL OXIDE	2.2K	5%	1W
R810	1-249-429-11	CARBON	10K	5%	1/4W
R811	1-249-429-11	CARBON	10K	5%	1/4W
R812	1-249-429-11	CARBON	10K	5%	1/4W (N600)
R813	1-249-429-11	CARBON	10K	5%	1/4W (N600)
R814	1-249-429-11	CARBON	10K	5%	1/4W
R815	1-249-429-11	CARBON	10K	5%	1/4W
R816	1-249-441-11	CARBON	100K	5%	1/4W
R819	1-249-429-11	CARBON	10K	5%	1/4W (N500)
R820	1-249-417-11	CARBON	1K	5%	1/4W
R821	1-249-417-11	CARBON	1K	5%	1/4W
R822	1-249-417-11	CARBON	1K	5%	1/4W
R823	1-249-417-11	CARBON	1K	5%	1/4W
R824	1-249-417-11	CARBON	1K	5%	1/4W
R828	1-249-423-11	CARBON	3.3K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
△R842	1-212-873-11	FUSIBLE	47	5%	1/4W F
△R843	1-212-873-11	FUSIBLE	47	5%	1/4W F (N600)
R844	1-249-429-11	CARBON	10K	5%	1/4W
R851	1-249-416-11	CARBON	820	5%	1/4W
R852	1-249-429-11	CARBON	10K	5%	1/4W
R853	1-249-441-11	CARBON	100K	5%	1/4W
R854	1-249-417-11	CARBON	1K	5%	1/4W
R855	1-249-429-11	CARBON	10K	5%	1/4W
R856	1-249-441-11	CARBON	100K	5%	1/4W
R857	1-249-417-11	CARBON	1K	5%	1/4W
R858	1-249-430-11	CARBON	12K	5%	1/4W
R859	1-249-441-11	CARBON	100K	5%	1/4W
R860	1-249-429-11	CARBON	10K	5%	1/4W
R861	1-249-441-11	CARBON	100K	5%	1/4W
R862	1-249-423-11	CARBON	3.3K	5%	1/4W
R863	1-249-423-11	CARBON	3.3K	5%	1/4W
R864	1-249-429-11	CARBON	10K	5%	1/4W
R865	1-249-429-11	CARBON	10K	5%	1/4W
R866	1-249-417-11	CARBON	1K	5%	1/4W
R867	1-249-417-11	CARBON	1K	5%	1/4W
R869	1-249-429-11	CARBON	10K	5%	1/4W (N500)
R871	1-249-433-11	CARBON	22K	5%	1/4W
R872	1-249-433-11	CARBON	22K	5%	1/4W
R873	1-249-441-11	CARBON	100K	5%	1/4W
R874	1-247-807-31	CARBON	100	5%	1/4W
R875	1-249-435-11	CARBON	33K	5%	1/4W
R876	1-249-417-11	CARBON	1K	5%	1/4W
R878	1-249-423-11	CARBON	3.3K	5%	1/4W
R890	1-249-423-11	CARBON	3.3K	5%	1/4W (N500)
R890	1-249-425-11	CARBON	4.7K	5%	1/4W (N600)
R891	1-249-423-11	CARBON	3.3K	5%	1/4W (N500)
R891	1-249-425-11	CARBON	4.7K	5%	1/4W (N600)
R893	1-249-423-11	CARBON	3.3K	5%	1/4W (N500)
R893	1-249-417-11	CARBON	1K	5%	1/4W (N600)
R894	1-249-423-11	CARBON	3.3K	5%	1/4W (N500)
R894	1-249-417-11	CARBON	1K	5%	1/4W (N600)

< COMPOSITION CIRCUIT BLOCK >

RB1	1-239-876-11	ENCAPSULATED COMPONENT	(AEP, UK, EE, CIS/N500:AEP2)
RB1	1-239-260-11	ENCAPSULATED COMPONENT	(G, IT, E, AUS/N500:MX, AR, PX)
RB2	1-236-463-11	ENCAPSULATED COMPONENT	(AEP, UK, EE, CIS/N500:AEP2)

< VARIABLE RESISTOR >

RV1	1-238-601-11	RES, ADJ, CARBON 22K
RV2	1-238-601-11	RES, ADJ, CARBON 22K
RV101	1-238-601-11	RES, ADJ, CARBON 22K (CIS)

The components identified by mark △ or dotted line with mark. △ are critical for safety. Replace only with part number specified.

MAIN

PANEL

Ref. No.	Part No.	Description	Remark
RV102	1-238-599-11	RES, ADJ, CARBON 4.7K(CIS)	
		< RELAY >	
RY801	1-755-067-11	RELAY	
		< TERMINAL >	
TM1	1-537-488-11	TERMINAL BOARD (ANT)	
		(AEP, UK, G, IT, EE, CIS/N500:AEP2)	
TM1	1-537-238-21	TERMINAL BOARD (E, AUS/N500:MX, AR, PX)	
		< TEST PIN >	
* TP101	1-560-061-00	PIN, CONNECTOR 3P (CIS)	
* TP102	1-560-061-00	PIN, CONNECTOR 3P (CIS)	
		< VIBRATOR >	
X201	1-579-900-21	VIBRATOR, CRYSTAL (4.332MHz)	
		(AEP, UK, G, IT, EE/N500:AEP2)	
		< VIBRATOR >	
XT51	1-760-549-11	VIBRATOR, CRYSTAL (4.5MHz)	

*	A-4377-261-A	PANEL BOARD, COMPLETE (N500:AEP, AEP2, UK)	
*	A-4377-824-A	PANEL BOARD, COMPLETE (N500:AUS, PX)	
*	A-4377-827-A	PANEL BOARD, COMPLETE (N500:EE)	
*	A-4377-833-A	PANEL BOARD, COMPLETE (N500:E, MX, AR)	
*	A-4377-835-A	PANEL BOARD, COMPLETE (N500:CIS)	
*	A-4377-919-A	PANEL BOARD, COMPLETE (N500:G, IT)	
*	A-4377-832-A	PANEL BOARD, COMPLETE (N600:AEP, UK)	
*	A-4378-423-A	PANEL BOARD, COMPLETE (N600:AUS)	
*	A-4377-818-A	PANEL BOARD, COMPLETE (N600:EE)	
*	A-4378-420-A	PANEL BOARD, COMPLETE (N600:E)	
*	A-4377-820-A	PANEL BOARD, COMPLETE (N600:CIS)	
*	A-4377-928-A	PANEL BOARD, COMPLETE (N600:G, IT)	

*	4-949-935-01	CUSHION (FL)	
*	4-969-714-01	HOLDER, FL TUBE	
		< CAPACITOR >	
C701	1-124-589-11	ELECT 47uF 20% 16V	
C702	1-161-494-00	CERAMIC 0.022uF 25V	
C703	1-161-494-00	CERAMIC 0.022uF 25V	
C704	1-126-245-11	ELECT 330uF 20% 6.3V	
C705	1-126-245-11	ELECT 330uF 20% 6.3V	
C706	1-164-159-11	CERAMIC 0.1uF 50V	
C707	1-164-159-11	CERAMIC 0.1uF 50V	

Ref. No.	Part No.	Description	Remark
C708	1-164-159-11	CERAMIC 0.1uF 50V	
C709	1-162-286-21	CERAMIC 220PF 10% 50V	
C710	1-162-286-21	CERAMIC 220PF 10% 50V	
C711	1-162-286-21	CERAMIC 220PF 10% 50V	
C712	1-162-286-21	CERAMIC 220PF 10% 50V	
C713	1-162-286-21	CERAMIC 220PF 10% 50V	
C714	1-162-286-21	CERAMIC 220PF 10% 50V	
C715	1-162-286-21	CERAMIC 220PF 10% 50V	
C716	1-162-286-21	CERAMIC 220PF 10% 50V	
C717	1-162-286-21	CERAMIC 220PF 10% 50V	
C718	1-162-286-21	CERAMIC 220PF 10% 50V	
C719	1-162-286-21	CERAMIC 220PF 10% 50V	
C720	1-162-286-21	CERAMIC 220PF 10% 50V	
C721	1-162-286-21	CERAMIC 220PF 10% 50V	
C722	1-162-286-21	CERAMIC 220PF 10% 50V	
C723	1-162-286-21	CERAMIC 220PF 10% 50V	
C724	1-162-286-21	CERAMIC 220PF 10% 50V	
C725	1-162-286-21	CERAMIC 220PF 10% 50V	
C726	1-162-286-21	CERAMIC 220PF 10% 50V	
C727	1-162-286-21	CERAMIC 220PF 10% 50V	
C728	1-162-286-21	CERAMIC 220PF 10% 50V	
C729	1-162-286-21	CERAMIC 220PF 10% 50V	
C730	1-162-286-21	CERAMIC 220PF 10% 50V	
C731	1-162-286-21	CERAMIC 220PF 10% 50V	
C732	1-162-286-21	CERAMIC 220PF 10% 50V	
C733	1-162-286-21	CERAMIC 220PF 10% 50V	
C734	1-162-286-21	CERAMIC 220PF 10% 50V	
C735	1-162-286-21	CERAMIC 220PF 10% 50V	
C736	1-162-286-21	CERAMIC 220PF 10% 50V	
C737	1-162-286-21	CERAMIC 220PF 10% 50V	
C738	1-162-286-21	CERAMIC 220PF 10% 50V	
C739	1-162-286-21	CERAMIC 220PF 10% 50V	
C740	1-162-286-21	CERAMIC 220PF 10% 50V	
C741	1-162-286-21	CERAMIC 220PF 10% 50V	
C742	1-162-286-21	CERAMIC 220PF 10% 50V	
C743	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C744	1-162-215-31	CERAMIC 47PF 5% 50V	
C745	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C746	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C747	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C748	1-126-177-11	ELECT 100uF 20% 10V	
C749	1-162-286-21	CERAMIC 220PF 10% 50V	
C750	1-102-948-00	CERAMIC 11PF 5% 50V	
C751	1-102-948-00	CERAMIC 11PF 5% 50V	
C752	1-126-301-11	ELECT 1uF 20% 50V	
C753	1-126-301-11	ELECT 1uF 20% 50V	
C754	1-124-261-00	ELECT 10uF 20% 50V	
C756	1-161-494-00	CERAMIC 0.022uF 25V	

Ref. No.	Part No.	Description	Remark
< CONNECTOR >			
* CN701	1-568-858-11	SOCKET, CONNECTOR 15P	
* CN702	1-568-858-11	SOCKET, CONNECTOR 15P	
* CN703	1-568-852-11	SOCKET, CONNECTOR 9P	(AEP, UK, G, IT, EE/N500:AEP2)
* CN703	1-568-850-11	SOCKET, CONNECTOR 7P	(CIS, E, AUS/N500:MX, AR, PX)
< DIODE >			
D701	8-719-987-63	DIODE 1N4148M	
D702	8-719-987-63	DIODE 1N4148M	
D703	8-719-987-63	DIODE 1N4148M	
D704	8-719-987-63	DIODE 1N4148M	(AEP, UK, EE, AUS/N500:AEP2, PX)
D705	8-719-987-63	DIODE 1N4148M	(G, IT, EE, E, AUS/N500:MX, AR, PX)
D706	8-719-987-63	DIODE 1N4148M	(CIS, E, AUS/N500:MX, AR, PX)
D707	8-719-987-63	DIODE 1N4148M (N600/N500:CIS)	
D708	8-719-987-63	DIODE 1N4148M	
< FILTER >			
FL701	1-517-380-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC701	8-759-327-88	IC uPD78044AGF-068-3B9	
IC702	8-741-810-59	IC SBX1810-59	
< COIL >			
L701	1-410-521-11	INDUCTOR 100uH	
< TRANSISTOR >			
Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q703	8-729-900-36	TRANSISTOR DTC124ES	
Q704	8-729-900-36	TRANSISTOR DTC124ES	
< RESISTOR >			
R701	1-247-807-31	CARBON 100 5% 1/4W	
R702	1-247-807-31	CARBON 100 5% 1/4W	
R703	1-247-807-31	CARBON 100 5% 1/4W	
R704	1-247-807-31	CARBON 100 5% 1/4W	
R709	1-249-417-11	CARBON 1K 5% 1/4W	
R710	1-249-417-11	CARBON 1K 5% 1/4W	
R711	1-249-433-11	CARBON 22K 5% 1/4W	
R712	1-249-433-11	CARBON 22K 5% 1/4W	
R713	1-249-429-11	CARBON 10K 5% 1/4W	
R714	1-249-429-11	CARBON 10K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R715	1-249-425-11	CARBON 4.7K 5% 1/4W	
R716	1-249-429-11	CARBON 10K 5% 1/4W	
R717	1-249-393-11	CARBON 10 5% 1/4W	
R718	1-249-423-11	CARBON 3.3K 5% 1/4W	
R719	1-247-807-31	CARBON 100 5% 1/4W	
R720	1-249-407-11	CARBON 150 5% 1/4W	
R721	1-249-409-11	CARBON 220 5% 1/4W	
R722	1-249-411-11	CARBON 330 5% 1/4W	
R723	1-249-413-11	CARBON 470 5% 1/4W	
R724	1-249-415-11	CARBON 680 5% 1/4W	
R725	1-249-417-11	CARBON 1K 5% 1/4W	
R726	1-249-419-11	CARBON 1.5K 5% 1/4W	
R727	1-249-421-11	CARBON 2.2K 5% 1/4W	
R728	1-249-423-11	CARBON 3.3K 5% 1/4W	
R729	1-249-425-11	CARBON 4.7K 5% 1/4W	
R730	1-249-429-11	CARBON 10K 5% 1/4W	
R731	1-249-433-11	CARBON 22K 5% 1/4W	
R732	1-249-423-11	CARBON 3.3K 5% 1/4W	
R733	1-247-807-31	CARBON 100 5% 1/4W	
R734	1-249-407-11	CARBON 150 5% 1/4W	
R735	1-249-409-11	CARBON 220 5% 1/4W	
R736	1-249-411-11	CARBON 330 5% 1/4W	
R737	1-249-413-11	CARBON 470 5% 1/4W	
R738	1-249-415-11	CARBON 680 5% 1/4W	
R739	1-249-417-11	CARBON 1K 5% 1/4W	
R740	1-249-419-11	CARBON 1.5K 5% 1/4W	
R741	1-249-421-11	CARBON 2.2K 5% 1/4W	
R742	1-249-423-11	CARBON 3.3K 5% 1/4W	
R746	1-249-417-11	CARBON 1K 5% 1/4W	
R747	1-249-423-11	CARBON 3.3K 5% 1/4W	
R748	1-249-441-11	CARBON 100K 5% 1/4W	
R749	1-249-441-11	CARBON 100K 5% 1/4W	
R750	1-249-441-11	CARBON 100K 5% 1/4W	
R751	1-249-441-11	CARBON 100K 5% 1/4W	
R752	1-249-441-11	CARBON 100K 5% 1/4W	
R753	1-249-441-11	CARBON 100K 5% 1/4W	
R754	1-249-441-11	CARBON 100K 5% 1/4W	
R755	1-249-441-11	CARBON 100K 5% 1/4W	
R756	1-249-441-11	CARBON 100K 5% 1/4W	
R757	1-249-441-11	CARBON 100K 5% 1/4W	
R758	1-249-441-11	CARBON 100K 5% 1/4W	
R759	1-249-441-11	CARBON 100K 5% 1/4W	
R761	1-249-417-11	CARBON 1K 5% 1/4W	
R762	1-249-421-11	CARBON 2.2K 5% 1/4W	
R763	1-249-417-11	CARBON 1K 5% 1/4W	
R764	1-249-417-11	CARBON 1K 5% 1/4W	
R765	1-249-417-11	CARBON 1K 5% 1/4W	
R766	1-249-429-11	CARBON 10K 5% 1/4W	
R767	1-249-429-11	CARBON 10K 5% 1/4W	

PANEL

Ref. No.	Part No.	Description	Remark
R768	1-249-429-11	CARBON 10K 5% 1/4W	
R769	1-249-441-11	CARBON 100K 5% 1/4W	
R770	1-247-887-00	CARBON 220K 5% 1/4W (UK, EE, CIS, E, AUS/N500:AEP2, MX, AR, PX)	
< COMPOSITION CIRCUIT BLOCK >			
RB701	1-232-967-11	COMPOSITION CIRCUIT BLOCK	
< SWITCH >			
S701	1-554-303-21	SWITCH, TACTILE (DANCE/5)	
S702	1-554-303-21	SWITCH, TACTILE (EQ MEMORY)	
S703	1-554-303-21	SWITCH, TACTILE (CHARACTER)	
S704	1-554-303-21	SWITCH, TACTILE (ENTER/NEXT)	
S705	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL ▽)	
S706	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL ◁)	
S707	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL ▷)	
S708	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL ▹)	
S709	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
S710	1-554-303-21	SWITCH, TACTILE (TUNING -)	
S711	1-554-303-21	SWITCH, TACTILE (TUNING MODE)	
S712	1-554-303-21	SWITCH, TACTILE (TUNING MEMORY)	
S713	1-554-303-21	SWITCH, TACTILE (TUNING +)	
S714	1-554-303-21	SWITCH, TACTILE (TUNER/BAND)	
S715	1-554-303-21	SWITCH, TACTILE (CLASSIC/4)	
S716	1-554-303-21	SWITCH, TACTILE (JAZZ/3)	
S717	1-554-303-21	SWITCH, TACTILE (POPS/2)	
S718	1-554-303-21	SWITCH, TACTILE (ROCK/1)	
S719	1-554-303-21	SWITCH, TACTILE (P-FILE)	
S720	1-554-303-21	SWITCH, TACTILE (TIMER SET)	
S721	1-554-303-21	SWITCH, TACTILE (CLOCK SET)	
S722	1-554-303-21	SWITCH, TACTILE (DAILY)	
S723	1-554-303-21	SWITCH, TACTILE (REC)	
S724	1-554-303-21	SWITCH, TACTILE (EON) (AEP, UK, G, IT, EE/N500:AEP2)	
S725	1-554-303-21	SWITCH, TACTILE (PTY) (AEP, UK, G, IT, EE/N500:AEP2)	
< VIBRATOR >			
X701	1-760-096-11	VIBRATOR, CRYSTAL (4.19MHz)	

MISCELLANEOUS			

3	1-769-544-11	WIRE (FLAT TYPE) (15 CORE)	
5	1-769-546-11	WIRE (FLAT TYPE) (7 CORE) (CIS, E, AUS/N500:MX, AR, PX)	
5	1-769-547-11	WIRE (FLAT TYPE) (9 CORE) (AEP, UK, G, IT, EE/N500:AEP2)	
6	1-769-545-11	WIRE (FLAT TYPE) (15 CORE)	

Ref. No.	Part No.	Description	Remark
ACCESSORIES & PACKING MATERIALS			

*	4-973-307-01	CUSHION (UPPER) (UK, EE, CIS, E, AUS/N500:MX, AR, PX)	
*	4-973-639-01	INDIVIDUAL CARTON (N500:AEP, AEP2, UK, G, IT)	
*	4-973-639-11	INDIVIDUAL CARTON (N600:AEP, UK, G, IT)	
*	4-973-650-01	CUSHION (LOWER) (UK, EE, CIS, E, AUS/N500:MX, AR, PX)	
*	4-973-868-01	CUSHION (AEP, G, IT/N500:AEP2)	

TAN-N500/N600

SERVICE MANUAL

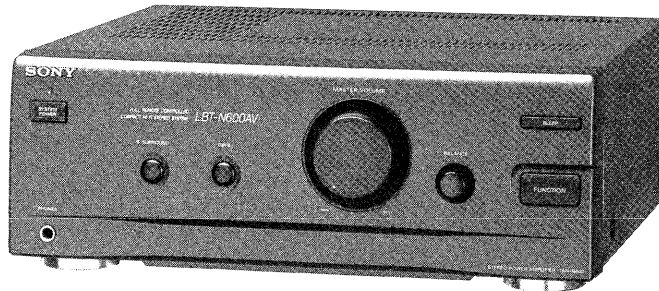


Photo: TAN-N600

TAN-N500/N600 are the Amplifier Section in
LBT-N500/N550/550K/550P and LBT-N600AV/N650AV.

AEP Model
UK Model
E Model
Australian Model
TAN-N500/N600
PX Model
TAN-N500

SPECIFICATIONS

DIN power output

40 W + 40 W (6 ohms,
at 1 kHz)

Continuous RMS power output

50 W + 50 W (6 ohms,
at 1 kHz, 5% THD)

Music power output

100 W + 100 W (6 ohms,
at 1 kHz, 10% THD)

Frequency response

15 Hz to 50 kHz ± 3 dB

Power requirements

European models:

220–230 V AC, 50/60 Hz

Australian model:

220–240 V AC, 50/60 Hz

Malaysian model:

220–240 V AC, 50/60 Hz

Mexican model:

120 V AC, 50/60 Hz

Other models:

110–120 V or 220–240 V AC
adjustable, 50/60 Hz

Power consumption

European models:

135 W

Other models:

195 W

Output	Jack type	Impedance
SURROUND SPEAKER (N500)	—	Accepts speakers up to 16 ohms
PHONES	Stereophone	Accepts headphones of 8 ohms or more

Weight Approx. 5.4 kg

Dimensions

Approx. 355 x 130 x 335 mm
(w/h/d, including projections)

Design and specifications are subject to
change without notice.

STEREO POWER AMPLIFIER
SONY®

SECTION 1

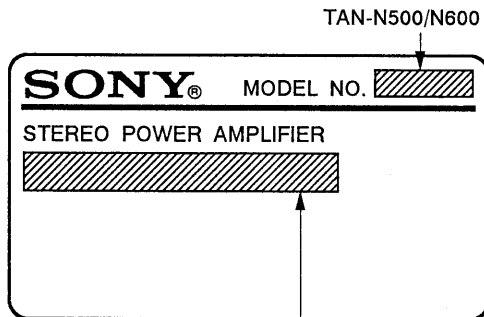
GENERAL

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5. ELECTRICAL PARTS LIST		18

MODEL IDENTIFICATION

– Specification Label Printed on Back Panel –



AEP, German, Italian, East European,
 CIS model : AC: 220 V–230 V ~50/60 Hz 135 W
 UK model : AC: 220 V–230 V ~50 Hz
 Australian,
 Malaysia model : AC: 220 V–240 V ~50/60 Hz 195 W
 E, Saudi Arabia, Singapore,
 PX model : AC: 110 V–120 V/220 V–240 V
 ~50/60 Hz 195 W
 Mexican model: AC: 120 V ~60 Hz 195 W

SAFETY-RELATED COMPONENT WARNING!!

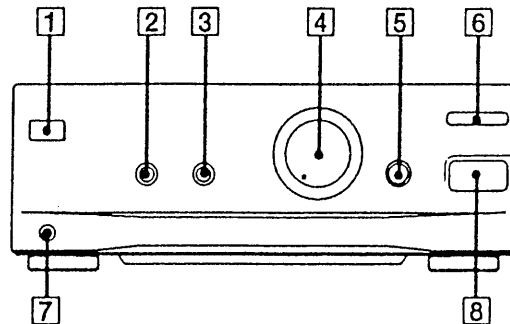
COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

This section is extracted from instruction manual.

1-1. INDEX TO PARTS AND CONTROLS

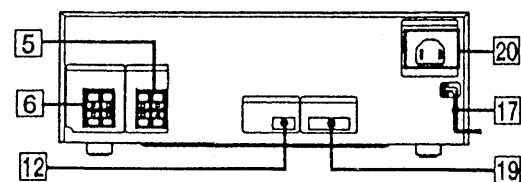
Front Panel

Power Amplifier (TAN-N500/N600)



- SYSTEM POWER switch
- SURROUND button (N500)
- S-SURROUND button (N600)
- DBFB button
- VOLUME control (N500)
- MASTER VOLUME control (N600)
- BALANCE control
- SLEEP button
- PHONES jack
- FUNCTION button

Rear Panel

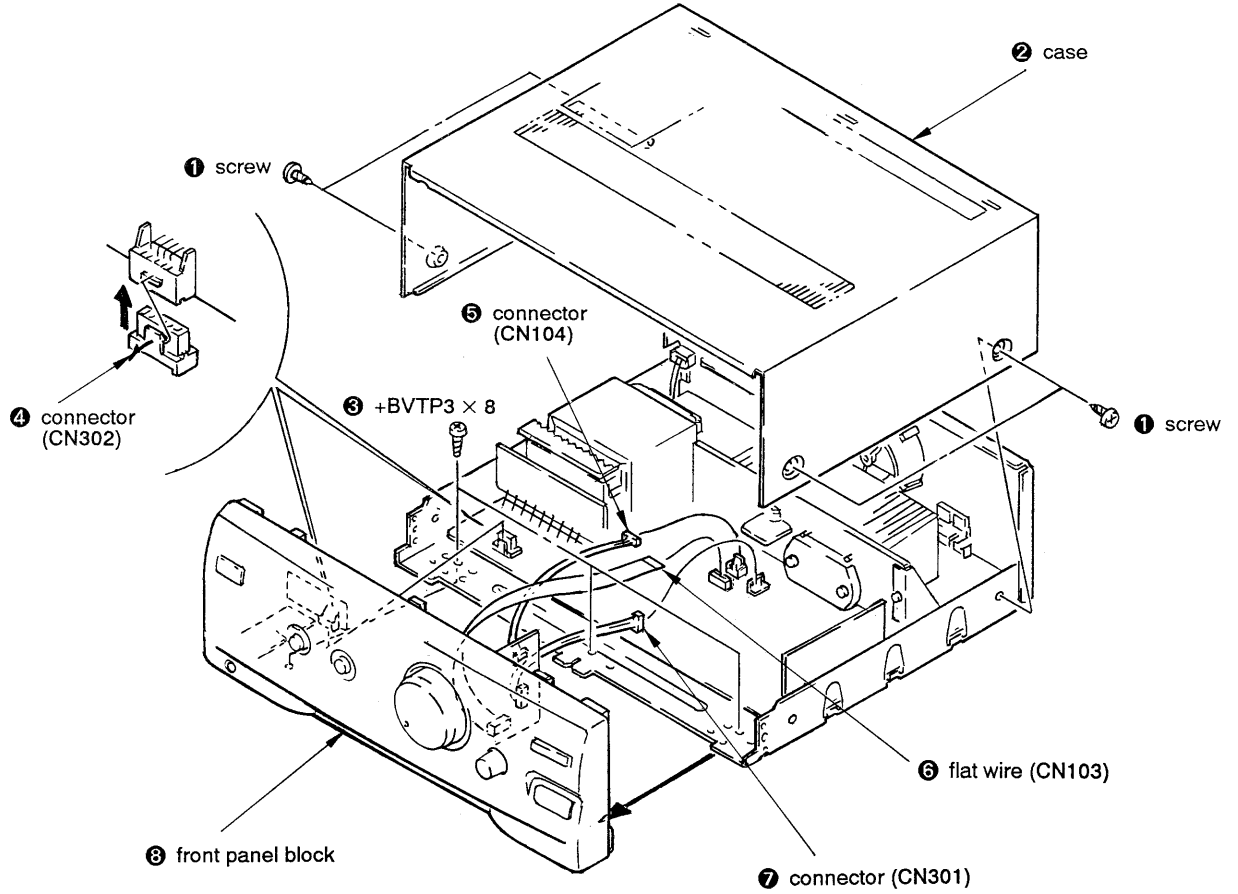


- SPEAKER connectors
- SURROUND SPEAKER connectors (N500)
- SYSTEM CONTROL 4 terminals (N600)
- AC power cord
- SYSTEM CONTROL 2 terminals
- AC OUTLET (N600)

SECTION 2 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

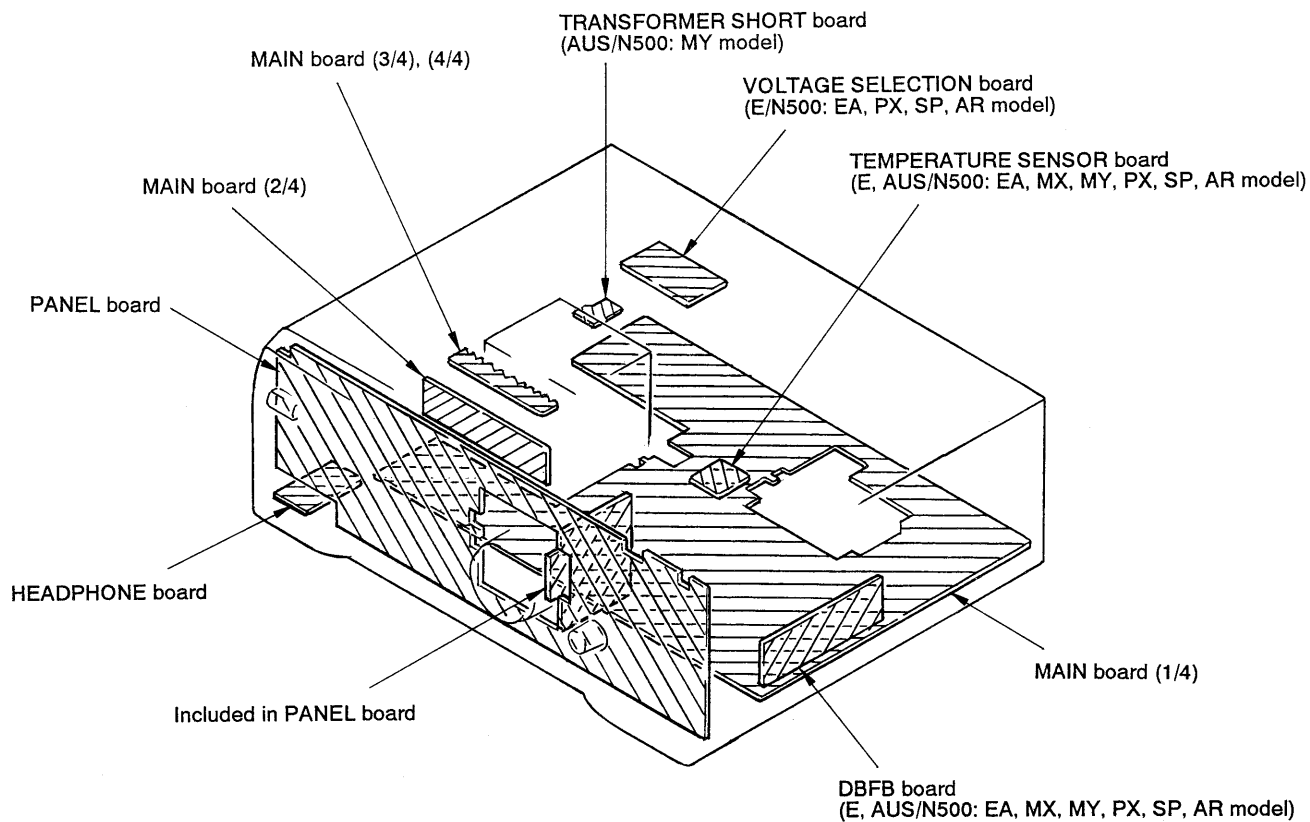
FRONT PANEL ASS'Y



SECTION 3

DIAGRAMS

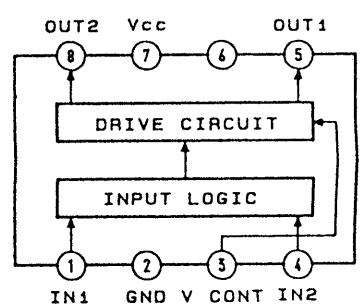
3-1. CIRCUIT BOARDS LOCATION



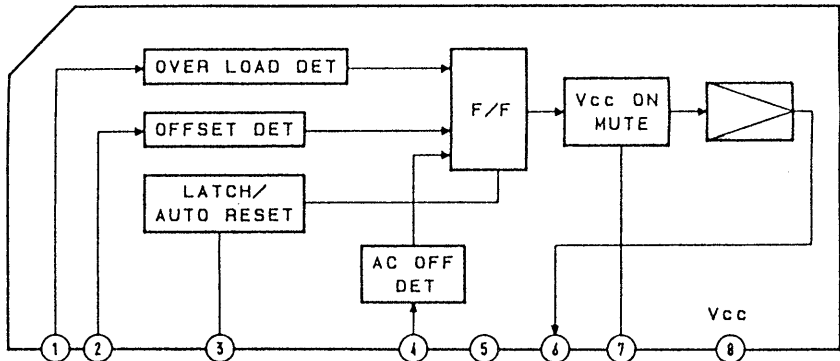
- Abbreviation
 - EA : Saudi Arabia model
 - MX : Mexican model
 - SP : Singapore model
 - MY : Malaysia model
 - AUS : Australian model
 - AR : Argentine model

• IC Block Diagrams

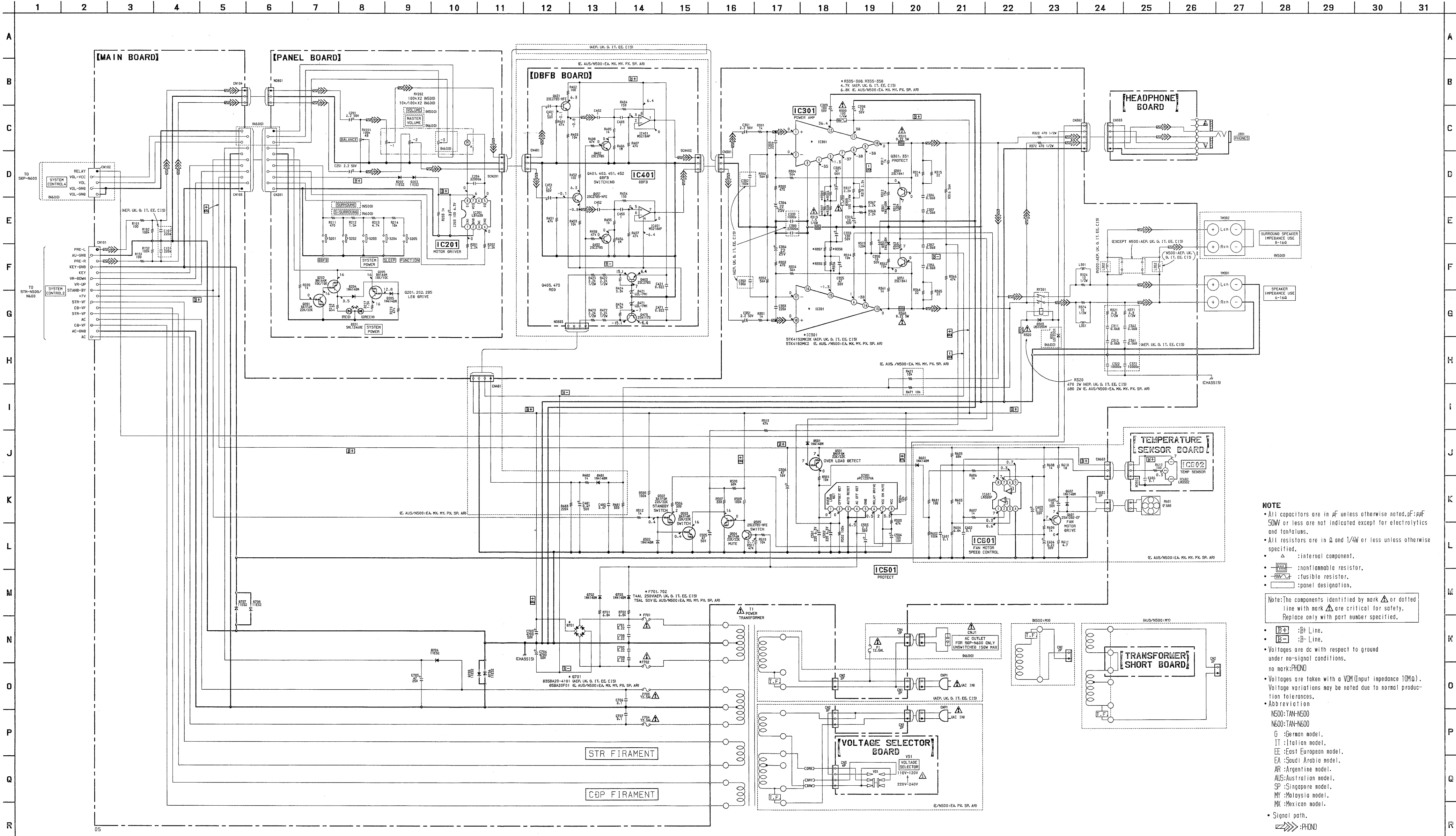
IC201 LB1639



IC501 μ PC1237HA



3-2. SCHEMATIC DIAGRAM



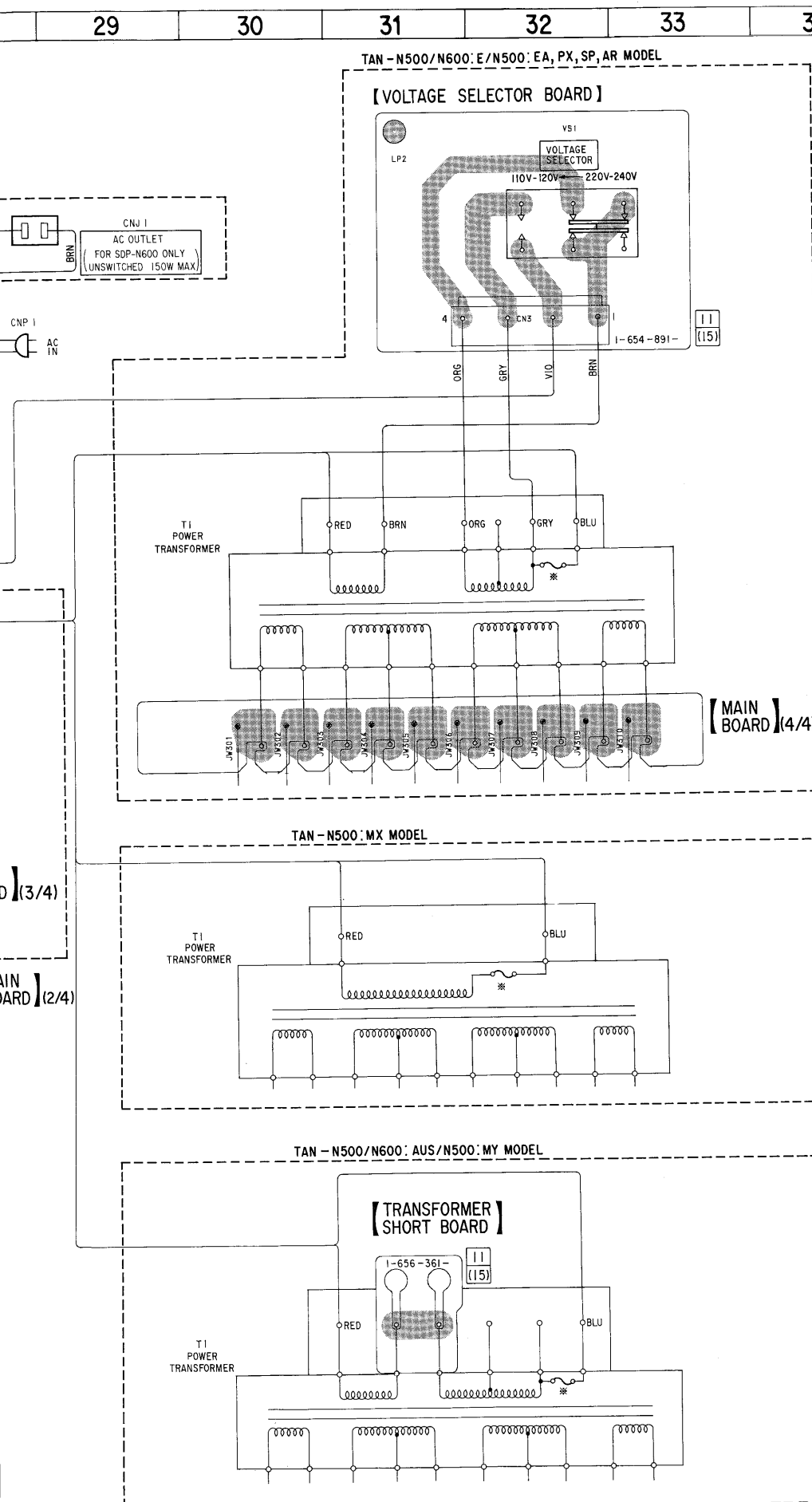
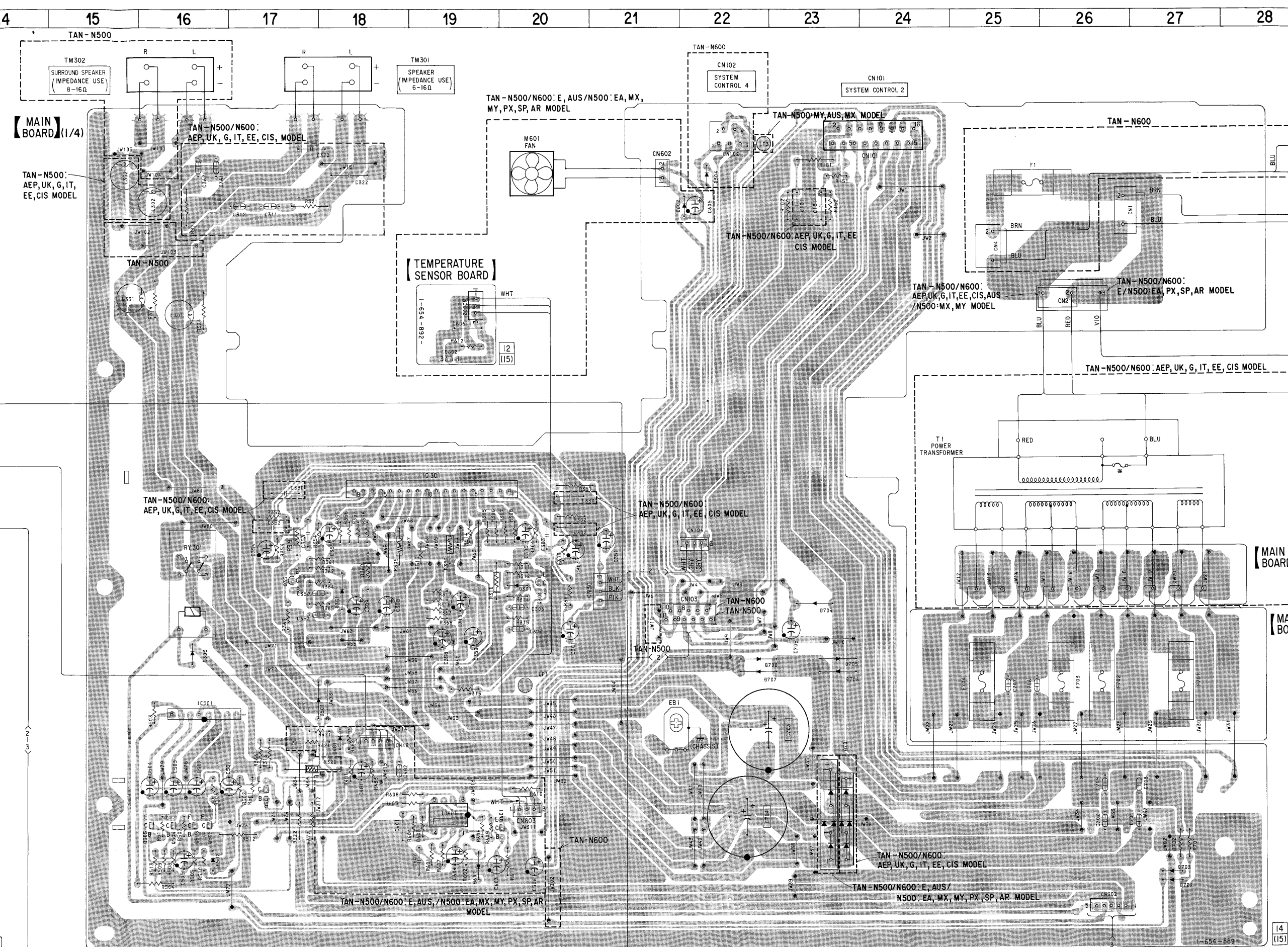
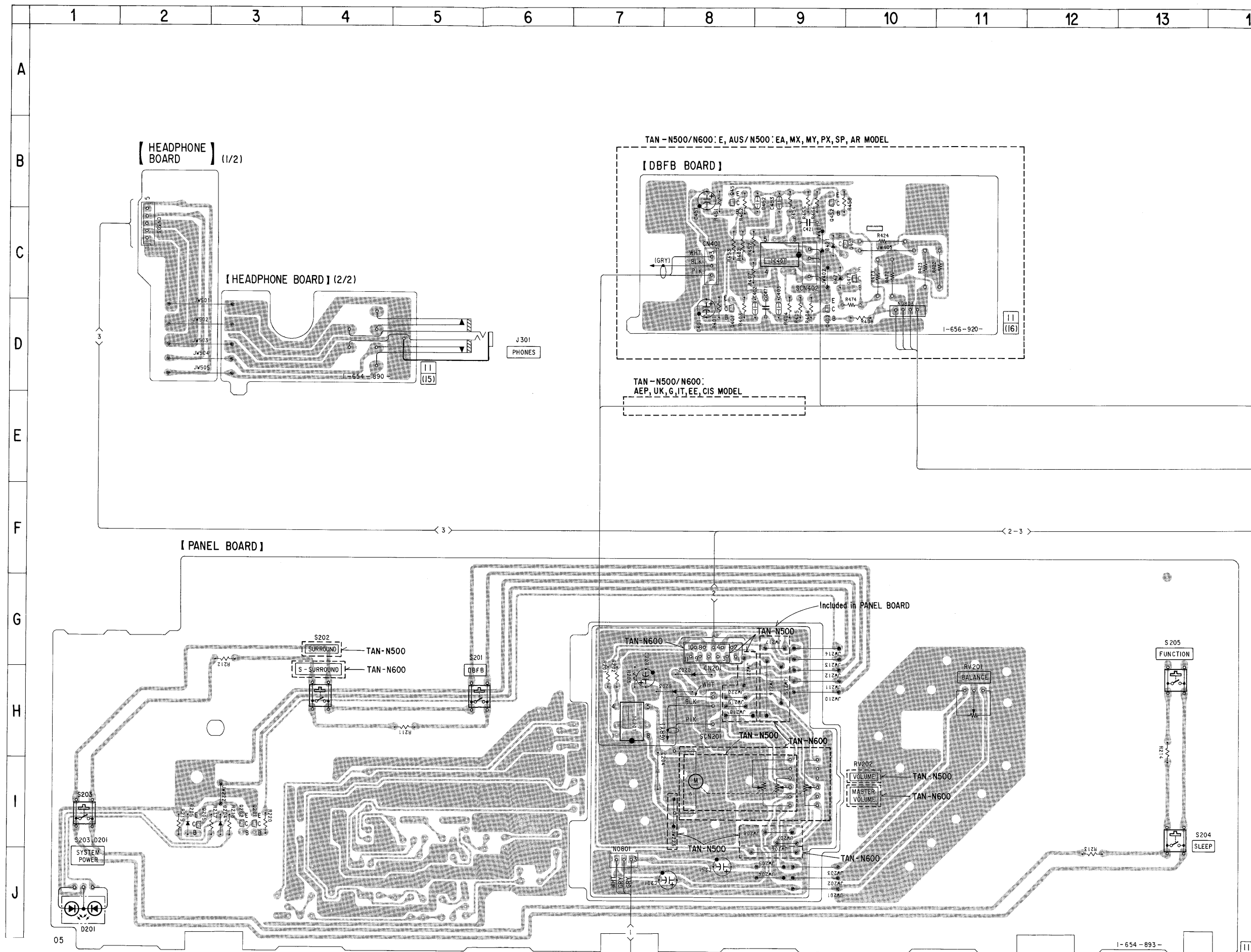
3-3. PRINTED WIRING BOARDS

● Semiconductor Location

Ref. No.	Location
D201	J-1
D202	H-8
D203	H-8
D204	I-3
D205	I-2
D301	C-20
D303	G-16
D304	B-22
D351	G-18
D421	C-9
D471	C-9
D481	H-18
D501	H-18
D502	J-16
D601	J-19
D602	B-22
D701	I-23
D702	J-27
D703	J-27
D704	G-23
D705	G-23
D706	H-23
D707	H-22
D708	G-22
IC201	H-7
IC301	F-19
IC401	C-9
IC501	H-16
IC601	I-19
IC602	D-19
Q201	I-3
Q202	I-3
Q205	I-2
Q301	G-20
Q351	G-17
Q401	D-8
Q402	D-9
Q451	B-8
Q452	B-9
Q501	I-17
Q502	I-16
Q503	I-16
Q504	I-16
Q505	I-16
Q601	I-20

Note:
 ○ : E, AUS/N500: EA, MX, MY, PX, SP, AR MODEL
 △ : N600

Note:
 ● : parts extracted from the component side.
 △ : internal component.
 ● : Pattern from the side which enables seeing.
 Abbreviations
 G : German model
 IT : Italian model
 EA : Saudi Arabia model
 EE : East European model
 MX : Mexican model
 SP : Singapore model
 MY : Malaysia model
 AUS : Australian model
 AR : Argentine model



SECTION 4

EXPLODED VIEWS

NOTE:



- -XX and -X mean standardized parts, so they may have some difference from the original one.
 - Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE) . . . (RED)

↑
Parts Color

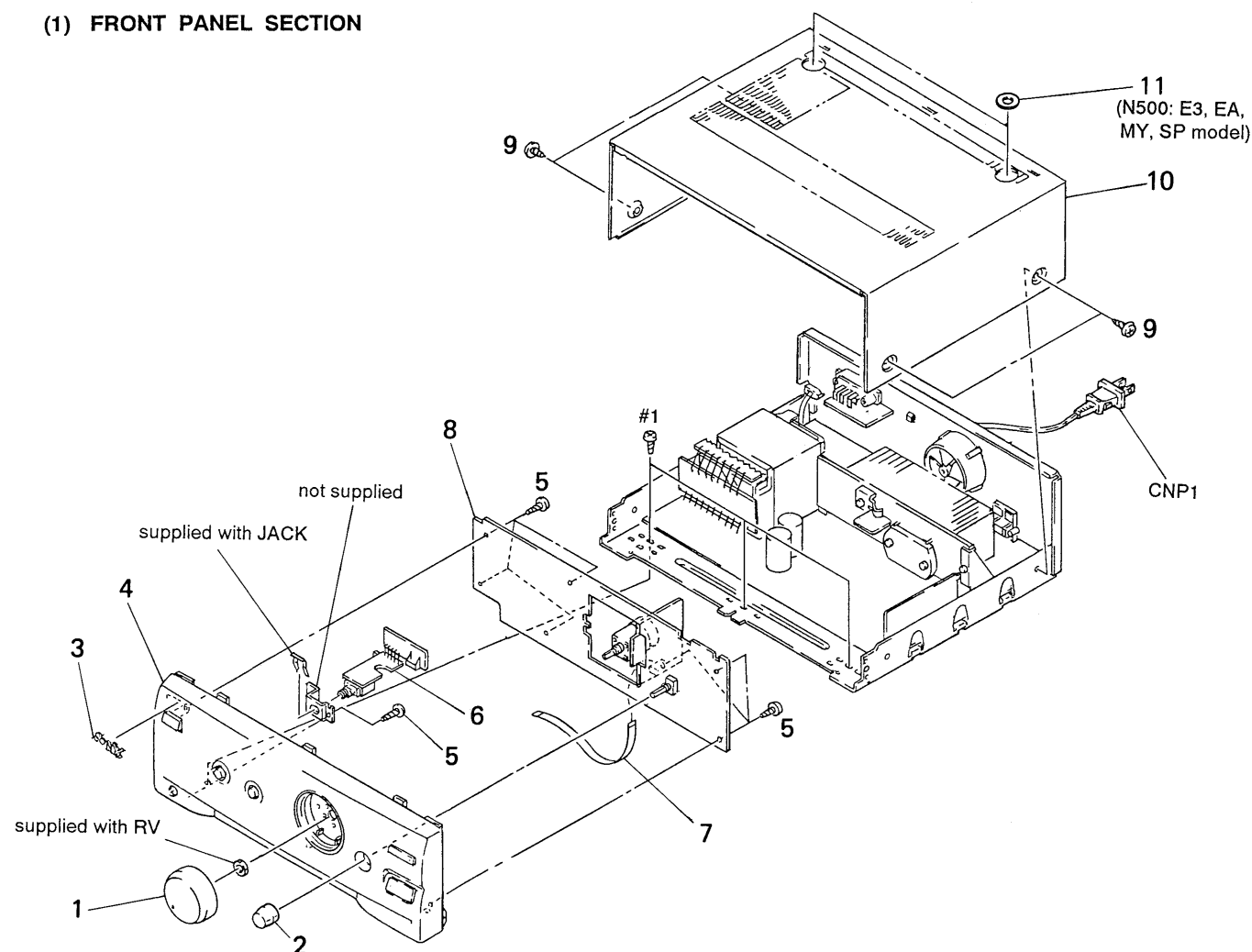
↑
Cabinet's Color
 - Abbreviation

G : German model	IT : Italian model
MX : Mexican model	SP : Singapore model
AR : Argentine model	E2 : 120 V AC area
- AE1. G1. IT1. EE1. CIS1 : Model for LBT-N500

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark  or dotted line with mark  are critical for safety.
Replace only with part number specified.

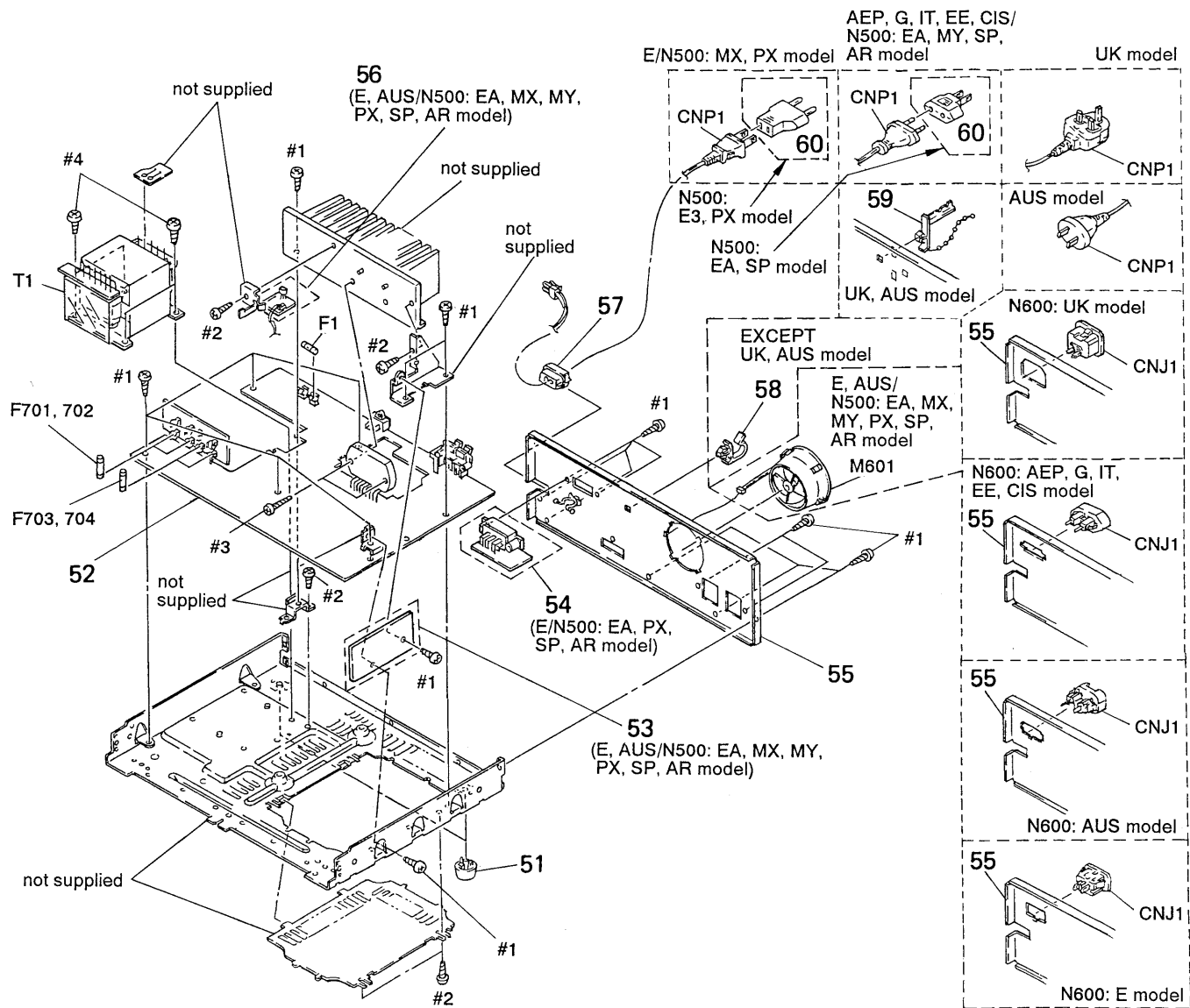
(1) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	4-969-683-11	KNOB (V)	
2	4-962-703-22	KNOB (SUR)	
3	4-963-404-21	EMBLEM (5-A), SONY (EXCEPT N600:AUS, E)	
4	X-4945-603-1	PANEL ASSY, FRONT (N500:AEP1, G1, IT1, EE1, CIS1)	
4	X-4945-604-1	PANEL ASSY, FRONT (N500:E2, MX, PX, AR, AUS, AEP2, UK2, G2, IT2, CIS2)	
4	X-4945-605-1	PANEL ASSY, FRONT (N500:E3, EA, MY, SP)	
4	X-4945-606-1	PANEL ASSY, FRONT (N600:AEP, UK, G, IT, EE, CIS)	
4	X-4946-128-1	PANEL ASSY, FRONT (N600:E, AUS)	
5	4-951-620-01	SCREW (2. 6X8), +BVP	

Ref. No.	Part No.	Description	Remark
* 6	1-654-890-11	HEADPHONE BOARD	
7	1-590-218-11	WIRE, FLAT TYPE (11 CORE) (N600)	
* 7	1-590-240-11	WIRE, FLAT TYPE (9 CORE) (N500)	
7	1-590-240-31	WIRE, FLAT TYPE (9 CORE) (N500)	
* 8	A-4377-249-A	PANEL BOARD, COMPLETE (N600)	
* 8	A-4377-273-A	PANEL BOARD, COMPLETE (N500: AEP, UK, G, IT, EE, CIS)	
* 8	A-4377-331-A	PANEL BOARD, COMPLETE (N500: E, EA, MX, MY, PX, SP, AR, AUS)	
9	3-363-099-01	SCREW (CASE 3 TP2)	
10	4-969-778-11	CASE (N600)	
* 10	4-969-778-51	CASE (N500)	
11	4-975-837-01	STOPPER (N500: E3, EA, MY, SP)	

(2) CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	X-4941-228-1	FOOT ASSY		* 57	3-703-244-00	BUSHING (2104), CORD (AEP, UK, G, IT, EE, CIS, AUS/N500:EA, MY, SP, AR)	
* 52	A-4377-248-A	MAIN BOARD, COMPLETE (N600:AEP, UK, G, IT, EE, CIS)		57	3-703-571-11	BUSHING (S) (4516), CORD (E/N500:MX, PX)	
* 52	A-4377-271-A	MAIN BOARD, COMPLETE (N500:AEP, UK, G, IT, EE, CIS)		* 58	4-949-235-01	HOOK (AEP, G, IT, EE, CIS, E/N500:EA, MX, MY, PX, SP, AR)	
* 52	A-4377-274-A	MAIN BOARD, COMPLETE (N500:E, EA, PX, SP, AR)		59	4-956-370-12	BAND, PLUG FIXED (UK, AUS)	
* 52	A-4377-816-A	MAIN BOARD, COMPLETE (N500:MX, MY, AUS)		△60	1-569-007-11	ADAPTER, CONVERSION 2P (N500:E3, PX)	
* 52	A-4378-418-A	MAIN BOARD, COMPLETE (N600:AUS)		△60	1-569-008-11	ADAPTER, CONVERSION 2P (N500:EA, SP)	
* 52	A-4378-419-A	MAIN BOARD, COMPLETE (N600:E)		△CNP1	1-526-751-12	OUTLET, AC (N600:UK)	
* 53	A-4378-331-A	DBFB BOARD, COMPLETE (E, AUS/N500:EA, MX, MY, PX, SP, AR)		△CNP1	1-526-794-11	OUTLET, AC (N600:AEP, G, IT, EE, CIS)	
* 54	1-654-891-11	VOLTAGE SELECTION BOARD (E/N500:EA, PX, SP, AR)		△CNP1	1-526-882-00	OUTLET, AC (N600:E)	
* 55	4-969-785-01	PANEL, BACK (N500:AEP, IT)		△CNP1	1-540-196-11	OUTLET, AC (N600:AUS)	
* 55	4-969-785-11	PANEL, BACK (N500:G)		△CNP1	1-558-943-41	CORD, POWER (E/N500:MX, PX)	
* 55	4-969-785-21	PANEL, BACK (N500:UK)		△CNP1	1-575-651-21	CORD, POWER (AEP, G, IT, EE, CIS/N500:EA, MY, SP, AR)	
* 55	4-969-785-31	PANEL, BACK (N500:EE, CIS)		△CNP1	1-696-845-11	CORD, POWER (AUS)	
* 55	4-970-164-01	PANEL, BACK (N500:E, AR)		△CNP1	1-751-529-11	CORD, POWER (UK)	
* 55	4-970-164-12	PANEL, BACK (N500:MY)		△F1	1-532-286-00	FUSE (T2. 5A 250V) (N600)	
* 55	4-970-164-21	PANEL, BACK (N500:SP)		△F701	1-532-299-00	FUSE (T5A 250V) (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
* 55	4-970-164-31	PANEL, BACK (N500:MX)		△F701	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
* 55	4-970-164-41	PANEL, BACK (N500:AUS)		△F702	1-532-299-00	FUSE (T5A 250V) (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
* 55	4-970-164-51	PANEL, BACK (N500:EA, PX)		△F702	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
* 55	4-970-164-61	PANEL, BACK (N600:E)		△F703	1-532-286-00	FUSE (T2. 5A 250V)	
* 55	4-970-164-71	PANEL, BACK (N600:AUS)		△F704	1-532-286-00	FUSE (T2. 5A 250V)	
* 55	4-971-710-01	PANEL, BACK (N600:AEP, IT)		M601	X-4942-029-1	CASE ASSY, FAN (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
* 55	4-971-710-11	PANEL, BACK (N600:G)		△T1	1-427-773-11	TRANSFORMER, POWER (AEP, UK, G, IT, EE, CIS)	
* 55	4-971-710-21	PANEL, BACK (N600:UK)		△T1	1-427-774-11	TRANSFORMER, POWER (E, AUS/N500:EA, MY, PX, SP, AR)	
* 55	4-971-710-31	PANEL, BACK (N600:EE, CIS)		△T1	1-427-907-11	TRANSFORMER, POWER (N500:MX)	
* 56	1-654-892-12	TEMPERATURE SENSOR BOARD (E, AUS/N500:EA, MX, MY, PX, SP, AR)					

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark		
C303	1-162-286-31	CERAMIC	220PF	10%	50V
C304	1-126-233-11	ELECT	22uF	20%	50V
C305	1-124-910-11	ELECT	47uF	20%	50V
C306	1-137-375-11	FILM	0.068uF	5%	50V
C307	1-137-375-11	FILM	0.068uF	5%	50V
C308	1-124-907-11	ELECT	10uF	20%	50V
C309	1-124-122-11	ELECT	100uF	20%	50V
C310	1-124-907-11	ELECT	10uF	20%	50V
C311	1-137-375-11	FILM	0.068uF	5%	50V (AEP, UK, G, IT, EE, CIS)
C312	1-137-375-11	FILM	0.068uF	5%	50V (AEP, UK, G, IT, EE, CIS)
C322	1-162-306-11	CERAMIC	0.01uF	20%	16V (N500:AEP, UK, G, IT, EE, CIS)
C330	1-162-294-31	CERAMIC	0.001uF	10%	50V (AEP, UK, G, IT, EE, CIS)
C351	1-124-925-11	ELECT	2.2uF	20%	100V
C352	1-162-282-31	CERAMIC	100PF	10%	50V (AEP, UK, G, IT, EE, CIS)
C353	1-162-286-31	CERAMIC	220PF	10%	50V
C354	1-126-233-11	ELECT	22uF	20%	50V
C355	1-124-910-11	ELECT	47uF	20%	50V
C356	1-137-375-11	FILM	0.068uF	5%	50V
C357	1-137-375-11	FILM	0.068uF	5%	50V
C358	1-124-907-11	ELECT	10uF	20%	50V
C359	1-124-122-11	ELECT	100uF	20%	50V
C361	1-137-375-11	FILM	0.068uF	5%	50V (AEP, UK, G, IT, EE, CIS)
C362	1-137-375-11	FILM	0.068uF	5%	50V (AEP, UK, G, IT, EE, CIS)
C372	1-162-306-11	CERAMIC	0.01uF	20%	16V (AEP, UK, G, IT, EE, CIS)
C380	1-161-494-00	CERAMIC	0.022uF		25V (AEP, UK, G, IT, EE, CIS)
C481	1-124-902-00	ELECT	0.47uF	20%	50V (E, AUS/N500:EA, MX, MY, PX, SP, AR)
C482	1-136-173-00	FILM	0.47uF	5%	50V (E, AUS/N500:EA, MX, MY, PX, SP, AR)
C501	1-104-666-11	ELECT	220uF	20%	6.3V
C502	1-104-666-11	ELECT	220uF	20%	6.3V
C503	1-124-925-11	ELECT	2.2uF	20%	100V
C504	1-124-443-00	ELECT	100uF	20%	10V
C505	1-124-910-11	ELECT	47uF	20%	50V

Ref. No.	Part No.	Description	Remark		
C506	1-104-664-11	ELECT	47uF	20%	16V
C601	1-164-159-11	CERAMIC	0.1uF		50V (E, AUS/N500:EA, MX, MY, PX, SP, AR)
C602	1-164-159-11	CERAMIC	0.1uF		50V (E, AUS/N500:EA, MX, MY, PX, SP, AR)
C603	1-124-464-11	ELECT	0.22uF	20%	50V (E, AUS/N500:EA, MX, MY, PX, SP, AR)
C604	1-124-464-11	ELECT	0.22uF	20%	50V (E, AUS/N500:EA, MX, MY, PX, SP, AR)
C605	1-124-907-11	ELECT	10uF	20%	50V (E, AUS/N500:EA, MX, MY, PX, SP, AR)
C701	1-136-169-00	FILM	0.22uF	5%	50V
C702	1-136-169-00	FILM	0.22uF	5%	50V
C703	1-126-138-11	ELECT	4700uF	20%	50V
C704	1-126-138-11	ELECT	4700uF	20%	50V
C705	1-124-477-11	ELECT	47uF	20%	25V
C706	1-136-165-00	FILM	0.1uF	5%	50V
C707	1-136-165-00	FILM	0.1uF	5%	50V
C708	1-136-169-00	FILM	0.22uF	5%	50V
C709	1-136-169-00	FILM	0.22uF	5%	50V
< CONNECTOR >					
CN1	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P			
CN2	1-564-321-00	PIN, CONNECTOR 2P			
		(AEP, UK, G, IT, EE, CIS, AUS, /N500:MX, MY)			
* CN2	1-564-687-11	PIN, CONNECTOR 3P (E/N500:EA, PX, SP, AR)			
* CN4	1-564-321-21	PIN, CONNECTOR 2P (N600)			
CN101	1-770-248-31	HOUSING, CONNECTOR (PC BOARD) 16P			
		(SYSTEM CONTROL 2)			
CN102	1-764-016-21	HOUSING, CONNECTOR (PC BOARD) 5P			
		(SYSTEM CONTROL 4) (N600)			
* CN103	1-568-828-11	SOCKET, CONNECTOR 9P (N500)			
* CN103	1-568-830-11	SOCKET, CONNECTOR 11P (N600)			
CN104	1-506-468-11	PIN, CONNECTOR 3P			
CN301	1-564-506-11	PLUG, CONNECTOR 3P			
CN302	1-770-594-21	CONNECTOR, BOARD TO BOARD 5P			
CN481	1-506-469-11	PIN, CONNECTOR 4P			
		(E, AUS/N500:EA, MX, MY, PX, SP, AR)			
CN602	1-564-505-11	PLUG, CONNECTOR 2P			
		(E, AUS/N500:EA, MX, MY, PX, SP, AR)			
CN603	1-506-468-11	PIN, CONNECTOR 3P			
		(E, AUS/N500:EA, MX, MY, PX, SP, AR)			
< DIODE >					
D301	8-719-987-63	DIODE 1N4148M			
D303	8-719-815-85	DIODE 1S1585			
D304	8-719-815-85	DIODE 1S1585 (N600)			
D351	8-719-987-63	DIODE 1N4148M			

MAIN

Ref. No.	Part No.	Description	Remark
D481	8-719-987-63	DIODE 1N4148M (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
D501	8-719-987-63	DIODE 1N4148M	
D502	8-719-987-63	DIODE 1N4148M	
D601	8-719-987-63	DIODE 1N4148M (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
D602	8-719-987-63	DIODE 1N4148M (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
D701	8-719-028-23	DIODE D3SBA20-4101 (AEP, UK, G, IT, EE, CIS)	
D701	8-719-510-68	DIODE D5SBA20F01 (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
D702	8-719-987-63	DIODE 1N4148M	
D703	8-719-987-63	DIODE 1N4148M	
D704	8-719-024-99	DIODE 11ES2-NTA2B	
D705	8-719-024-99	DIODE 11ES2-NTA2B	
D706	8-719-024-99	DIODE 11ES2-NTA2B	
D707	8-719-024-99	DIODE 11ES2-NTA2B	
D708	8-719-024-99	DIODE 11ES2-NTA2B	
< FUSE >			
△F1	1-532-286-00	FUSE (T2. 5A 250V) (N600)	
△F701	1-532-299-00	FUSE (T5A 250V) (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
△F701	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
△F702	1-532-299-00	FUSE (T5A 250V) (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
△F702	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
△F703	1-532-286-00	FUSE (T2. 5A 250V)	
△F704	1-532-286-00	FUSE (T2. 5A 250V)	
< IC >			
IC301	8-749-920-09	IC STK-4152MK2K (AEP, UK, G, IT, EE, CIS)	
IC301	8-749-900-34	IC STK-4182MK2 (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
IC501	8-759-111-68	IC uPC1237HA	
IC601	8-759-103-93	IC uPC393C (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
< COIL >			
L301	1-420-872-00	COIL, AIR-CORE	
L302	1-420-872-00	COIL, AIR-CORE (N500:AEP, UK, G, IT, EE, CIS)	
L351	1-420-872-00	COIL, AIR-CORE	
L352	1-420-872-00	COIL, AIR-CORE (N500:AEP, UK, G, IT, EE, CIS)	
< TRANSISTOR >			
Q301	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q351	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q501	8-729-900-63	TRANSISTOR DTA124ES	

Ref. No.	Part No.	Description	Remark
Q502	8-729-900-36	TRANSISTOR DTC124ES	
Q503	8-729-900-36	TRANSISTOR DTC124ES	
Q504	8-729-900-36	TRANSISTOR DTC124ES	
Q505	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q601	8-729-140-93	TRANSISTOR 2SB733-34 (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
< RESISTOR >			
R101	1-247-807-31	CARBON 100 5% 1/4W	
R102	1-249-441-11	CARBON 100K 5% 1/4W	
R151	1-247-807-31	CARBON 100 5% 1/4W	
R152	1-249-441-11	CARBON 100K 5% 1/4W	
R301	1-249-417-11	CARBON 1K 5% 1/4W	
R302	1-249-438-11	CARBON 56K 5% 1/4W	
R303	1-249-413-11	CARBON 470 5% 1/4W	
R304	1-249-438-11	CARBON 56K 5% 1/4W	
R305	1-249-425-11	CARBON 4.7K 5% 1/4W (AEP, UK, G, IT, EE, CIS)	
R305	1-249-427-11	CARBON 6.8K 5% 1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
R306	1-249-425-11	CARBON 4.7K 5% 1/4W (AEP, UK, G, IT, EE, CIS)	
R306	1-249-427-11	CARBON 6.8K 5% 1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
R307	1-249-425-11	CARBON 4.7K 5% 1/4W (AEP, UK, G, IT, EE, CIS)	
R307	1-249-427-11	CARBON 6.8K 5% 1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
R308	1-249-425-11	CARBON 4.7K 5% 1/4W (AEP, UK, G, IT, EE, CIS)	
R308	1-249-427-11	CARBON 6.8K 5% 1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
△R309	1-212-881-11	FUSIBLE 100 5% 1/4W F	
△R310	1-217-156-00	WIREWOUND 0.22 10% 5W F	
R311	1-249-417-11	CARBON 1K 5% 1/4W	
R312	1-249-431-11	CARBON 15K 5% 1/4W	
R313	1-249-441-11	CARBON 100K 5% 1/4W	
R314	1-249-397-11	CARBON 22 5% 1/4W	
R315	1-249-397-11	CARBON 22 5% 1/4W	
R316	1-249-438-11	CARBON 56K 5% 1/4W	
R317	1-249-421-11	CARBON 2.2K 5% 1/4W	
R318	1-249-421-11	CARBON 2.2K 5% 1/4W	
△R319	1-249-383-11	CARBON 1.5 5% 1/6W F	
△R320	1-215-890-11	METAL OXIDE 470 5% 2W F (AEP, UK, G, IT, EE, CIS)	
△R320	1-215-891-11	METAL OXIDE 680 5% 2W F (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
R321	1-260-074-11	CARBON 6.8 5% 1/2W (AEP, UK, G, IT, EE, CIS)	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark		
R322	1-260-095-11	CARBON	470	5%	1/2W
R324	1-260-076-11	CARBON	10	5%	1/2W
R351	1-249-417-11	CARBON	1K	5%	1/4W
R352	1-249-438-11	CARBON	56K	5%	1/4W
R353	1-249-413-11	CARBON	470	5%	1/4W
R354	1-249-438-11	CARBON	56K	5%	1/4W
R355	1-249-425-11	CARBON	4.7K	5%	1/4W (AEP, UK, G, IT, EE, CIS)
R355	1-249-427-11	CARBON	6.8K	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R356	1-249-425-11	CARBON	4.7K	5%	1/4W (AEP, UK, G, IT, EE, CIS)
R356	1-249-427-11	CARBON	6.8K	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R357	1-249-425-11	CARBON	4.7K	5%	1/4W (AEP, UK, G, IT, EE, CIS)
R357	1-249-427-11	CARBON	6.8K	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R358	1-249-425-11	CARBON	4.7K	5%	1/4W (AEP, UK, G, IT, EE, CIS)
R358	1-249-427-11	CARBON	6.8K	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
△R359	1-212-881-11	FUSIBLE	100	5%	1/4W F
△R360	1-217-156-00	WIREWOUND	0.22	10%	5W F
R361	1-249-417-11	CARBON	1K	5%	1/4W
R362	1-249-431-11	CARBON	15K	5%	1/4W
R363	1-249-441-11	CARBON	100K	5%	1/4W
R364	1-249-397-11	CARBON	22	5%	1/4W
R365	1-249-397-11	CARBON	22	5%	1/4W
R366	1-249-437-11	CARBON	47K	5%	1/4W
R367	1-249-421-11	CARBON	2.2K	5%	1/4W
R368	1-249-421-11	CARBON	2.2K	5%	1/4W
R371	1-260-074-11	CARBON	6.8	5%	1/2W (AEP, UK, G, IT, EE, CIS)
R372	1-260-095-11	CARBON	470	5%	1/2W
R374	1-260-076-11	CARBON	10	5%	1/2W
R421	1-249-429-11	CARBON	10K	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R471	1-249-429-11	CARBON	10K	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R481	1-249-411-11	CARBON	330	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R482	1-249-417-11	CARBON	1K	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R483	1-247-887-00	CARBON	220K	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R501	1-249-429-11	CARBON	10K	5%	1/4W
R502	1-249-441-11	CARBON	100K	5%	1/4W
R503	1-249-437-11	CARBON	47K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R504	1-249-430-11	CARBON	12K	5%	1/4W
R505	1-249-441-11	CARBON	100K	5%	1/4W
R506	1-249-411-11	CARBON	330	5%	1/4W
R507	1-249-411-11	CARBON	330	5%	1/4W
R508	1-249-439-11	CARBON	68K	5%	1/4W
R509	1-249-441-11	CARBON	100K	5%	1/4W
R510	1-249-429-11	CARBON	10K	5%	1/4W
R511	1-249-437-11	CARBON	47K	5%	1/4W
R512	1-249-417-11	CARBON	1K	5%	1/4W
R513	1-249-437-11	CARBON	47K	5%	1/4W
R514	1-249-429-11	CARBON	10K	5%	1/4W
R515	1-247-881-00	CARBON	120K	5%	1/4W
R601	1-247-807-31	CARBON	100	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R602	1-249-441-11	CARBON	100K	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R603	1-249-417-11	CARBON	1K	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R604	1-249-427-11	CARBON	6.8K	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R605	1-249-439-11	CARBON	68K	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R606	1-249-417-11	CARBON	1K	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R607	1-249-417-11	CARBON	1K	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R608	1-249-417-11	CARBON	1K	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R609	1-249-417-11	CARBON	1K	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R610	1-249-396-11	CARBON	18	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R611	1-249-389-11	CARBON	4.7	5%	1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)
R701	1-249-427-11	CARBON	6.8K	5%	1/4W
R702	1-249-427-11	CARBON	6.8K	5%	1/4W
< RELAY >					
RY301	1-515-920-11	RELAY (24V)	< TRANSFORMER >		
△T1	1-427-773-11	TRANSFORMER, POWER	(AEP, UK, G, IT, EE, CIS)		
△T1	1-427-774-11	TRANSFORMER, POWER	(E, AUS/N500:EA, MY, PX, SP, AR)		
△T1	1-427-907-11	TRANSFORMER, POWER	(N500:MX)		

The components identified by
mark △ or dotted line with mark.
△ are critical for safety.
Replace only with part number
specified.

MAIN

PANEL

HEADPHONE

TEMPERATURE SENSOR

VOLTAGE SELECTION

Ref.No.	Part No.	Description	Remark
< TERMINAL >			
TM301	1-537-842-11	TERMINAL BOARD (SPEAKER) (AEP, UK, G, IT, EE, CIS)	
TM301	1-537-240-11	TERMINAL BOARD (CHECKER PIN) (SPEAKER) (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
TM302	1-537-240-11	TERMINAL BOARD (CHECKER PIN) (SURROUND SPEAKER) (N500)	

*	A-4377-331-A	PANEL BOARD, COMPLETE (N500:E, EA, MX, MY, PX, SP, AR, AUS)	
*	A-4377-273-A	PANEL BOARD, COMPLETE (N500:AEP, UK, G, IT, EE, CIS)	
*	A-4377-249-A	PANEL BOARD, COMPLETE (N600)	

< CAPACITOR >			
C201	1-124-925-11	ELECT 2.2uF 20% 100V	
C203	1-124-443-00	ELECT 100uF 20% 10V	
C204	1-161-494-00	CERAMIC 0.022uF 25V	
C251	1-124-925-11	ELECT 2.2uF 20% 100V	
< CONNECTOR >			
* CN201	1-568-830-11	SOCKET, CONNECTOR 11P (N600)	
* CN201	1-568-828-11	SOCKET, CONNECTOR 9P (N500)	
< DIODE >			
D201	8-719-045-39	LED SML12460C-TP4 (SYSTEM POWER)	
D202	8-719-024-99	DIODE 11ES2-NTA2B	
D203	8-719-024-99	DIODE 11ES2-NTA2B	
D204	8-719-987-63	DIODE 1N4148M	
D205	8-719-987-63	DIODE 1N4148M	
< IC >			
IC201	8-759-820-62	IC LB1639	
< TRANSISTOR >			
Q201	8-729-900-36	TRANSISTOR DTC124ES	
Q202	8-729-422-57	TRANSISTOR UN4111	
Q205	8-729-422-57	TRANSISTOR UN4111	
< RESISTOR >			
R201	1-249-421-11	CARBON 2.2K 5% 1/4W	
R202	1-249-421-11	CARBON 2.2K 5% 1/4W	
R203	1-249-417-11	CARBON 1K 5% 1/4W	
R211	1-249-413-11	CARBON 470 5% 1/4W	
R212	1-249-419-11	CARBON 1.5K 5% 1/4W	
R213	1-249-425-11	CARBON 4.7K 5% 1/4W	
R214	1-249-432-11	CARBON 18K 5% 1/4W	
R217	1-249-419-11	CARBON 1.5K 5% 1/4W	

Ref.No.	Part No.	Description	Remark
R218	1-249-423-11	CARBON 3.3K 5% 1/4W	
R219	1-249-437-11	CARBON 47K 5% 1/4W	
R220	1-249-417-11	CARBON 1K 5% 1/4W	
< VARIABLE RESISTOR >			
RV201	1-223-847-11	RES, VAR, CARBON 100K (BALANCE)	
RV202	1-223-845-11	RES, VAR, CARBON 10K/100KX2 (MASTER VOLUME) (N600)	
RV202	1-223-844-11	RES, VAR, CARBON 100KX2 (VOLUME) (N500)	
< SWITCH >			
S201	1-554-303-21	SWITCH, TACTILE (DBFB)	
S202	1-554-303-21	SWITCH, TACTILE (SURROUND) (N500)	
S202	1-554-303-21	SWITCH, TACTILE (S-SURROUND) (N600)	
S203	1-554-303-21	SWITCH, TACTILE (SYSTEM POWER)	
S204	1-554-303-21	SWITCH, TACTILE (SLEEP)	
S205	1-554-303-21	SWITCH, TACTILE (FUNCTION)	

*	1-654-890-11	HEADPHONE BOARD *****	
< CONNECTOR >			
CN303	1-770-593-41	CONNECTOR, BOARD TO BOARD 5P	
< JACK >			
J301	1-580-903-11	JACK, LARGE TYPE (PHONES)	

*	1-654-892-12	TEMPERATURE SENSOR BOARD (E, AUS/N500:EA, MX, MY, PX, SP, AR) *****	
< CAPACITOR >			
C606	1-164-159-11	CERAMIC 0.1uF 50V	
< IC >			
IC602	8-759-947-34	IC LM35DZ	
< RESISTOR >			
R612	1-247-807-31	CARBON 100 5% 1/4W	

*	1-654-891-11	VOLTAGE SELECTION BOARD (E/N500:EA, PX, SP, AR) *****	
< CAPACITOR >			
CN3	1-568-106-11	PIN, CONNECTOR 4P	

Ref. No.	Part No.	Description	Remark
< VOLTAGE SELECTOR >			
△VS1	1-762-298-11	SW, AC POWER VOLTAGE SELECTOR (VOLTAGE SELECTOR)	

MISCELLANEOUS			

7	1-590-218-11	WIRE, FLAT TYPE (11 CORE) (N600)	
* 7	1-590-240-11	WIRE, FLAT TYPE (9 CORE) (N500)	
7	1-590-240-31	WIRE, FLAT TYPE (9 CORE) (N500)	
△60	1-569-007-11	ADAPTER, CONVERSION 2P (N500:E3, PX)	
△60	1-569-008-11	ADAPTER, CONVERSION 2P (N500:EA, SP)	
△CNJ1	1-526-751-12	OUTLET, AC (N600:UK)	
△CNJ1	1-526-794-11	OUTLET, AC (N600:AEP, G, IT, EE, CIS)	
△CNJ1	1-526-882-00	OUTLET, AC (N600:E)	
△CNJ1	1-540-196-11	OUTLET, AC (N600:AUS)	
△CNP1	1-558-943-41	CORD, POWER (E/N500:MX, PX)	
△CNP1	1-575-651-21	CORD, POWER (AEP, G, IT, EE, CIS/N500:EA, MY, SP, AR)	
△CNP1	1-696-845-11	CORD, POWER (AUS)	
△CNP1	1-751-529-11	CORD, POWER (UK)	
△F1	1-532-286-00	FUSE (T2. 5A 250V) (N600)	
△F701	1-532-299-00	FUSE (T5A 250V) (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
△F701	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
△F702	1-532-299-00	FUSE (T5A 250V) (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
△F702	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
△F703	1-532-286-00	FUSE (T2. 5A 250V)	
△F704	1-532-286-00	FUSE (T2. 5A 250V)	
△T1	1-427-773-11	TRANSFORMER, POWER (AEP, UK, G, IT, EE, CIS)	
△T1	1-427-774-11	TRANSFORMER, POWER (E, AUS/N500:EA, MY, PX, SP, AR)	
△T1	1-427-907-11	TRANSFORMER, POWER (N500:MX)	

HARDWARE LIST

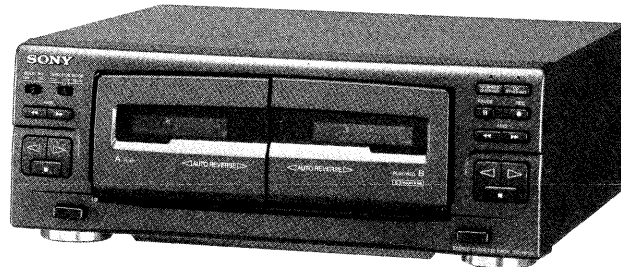
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#2	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S
#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 N-S
#4	7-682-560-04	SCREW +BVTT 4X6 (S)

The components identified by
 mark △ or dotted line with mark.
 △ are critical for safety.
 Replace only with part number
 specified.


TC-N500

SERVICE MANUAL

*AEP Model
UK Model
E Model
Australian Model
PX Model*



TC-N500 are the Stereo Cassette Deck
section in LBT-N500/N550/N550K/N550P
and LBT-N600AV/N650AV.

Dolby noise reduction manufactured under license from
Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of
Dolby Laboratories Licensing Corporation.

Model Name Using Similar Mechanism	HCD-A390
Tape Transport Mechanism Type	DECK A: TCM-190RA12AL DECK B: TCM-190RB53A

SPECIFICATIONS

Recording system	4-track 2-channel stereo
Frequency response	DOLBY NR OFF With Sony Type II cassette 40 Hz to 14 kHz (± 3 dB) With Sony Type I cassette 40 Hz to 13 kHz (± 3 dB)
Wow and flutter	0.1% (W.RMS) $\pm 0.2\%$ (W.Peak)
Weight	Approx. 3.3 kg
Dimensions	Approx. 355 x 130 x 310 mm (w/h/d, including projections)

Design and specifications are subject to
change without notice.

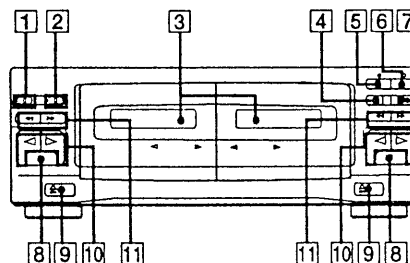
STEREO CASSETTE DECK
SONY[®]

SECTION 1 GENERAL

TABLE OF CONTENTS

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This section is extracted from LBT-N500 instruction manual.



- 1 DOLBY NR switch (16)
- 2 DIRECTION MODE selector (16)
- 3 Cassette compartments (16)
- 4 II PAUSE button (16)
- 5 HI-SPEED DUBBING button (20)
- 6 CD SYNCRO button (17, 19)
- 7 ● REC button (17)
- 8 ■ (stop) buttons (16)
- 9 △ EJECT buttons (16)
- 10 ▷ (front side play)
- ◁ (reverse side play) buttons (16, 17)
- 11 ◀◀ (fast leftward) AMS
- ▶▶ (fast rightward) AMS buttons (16)

SERVICING NOTES

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Power Supply Used Servicing

This Unit does not have its own power supply. As it works on the power supplied from the amplifier (STR-N500/N600) used for this series, connect this amplifier when servicing the unit (conduction repair, etc.).

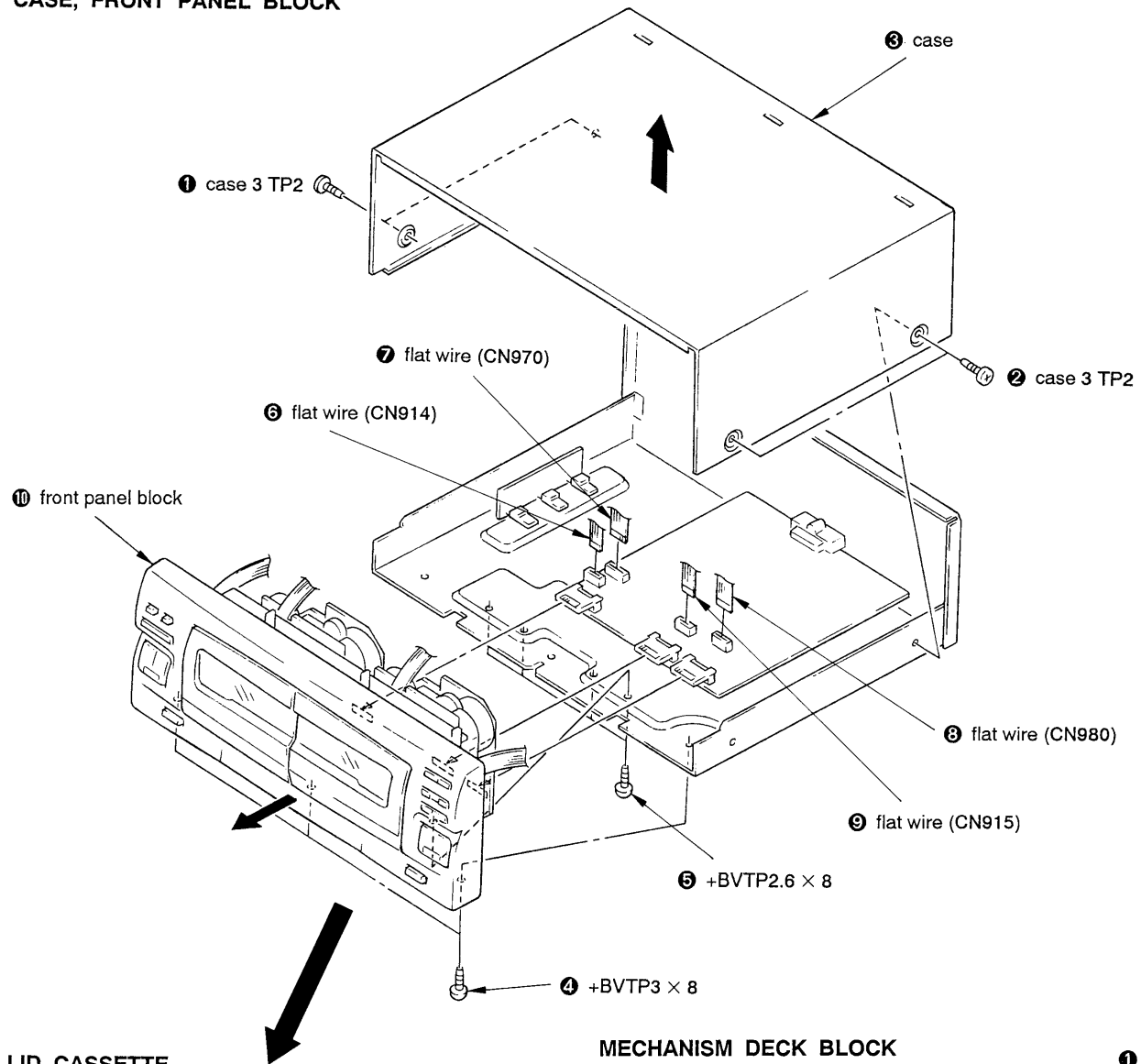
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

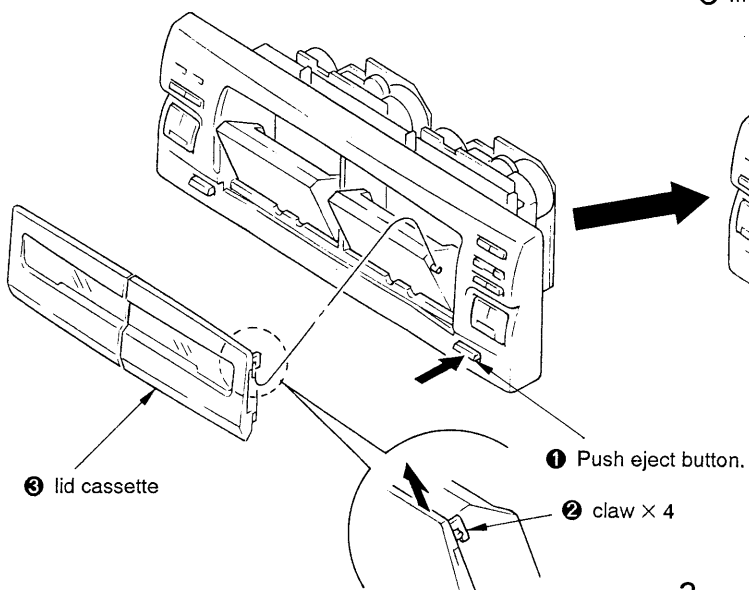
SECTION 2 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

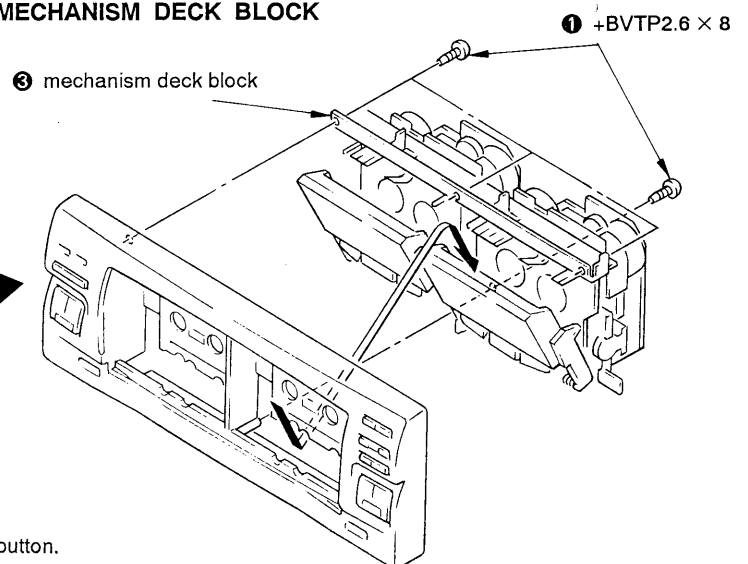
CASE, FRONT PANEL BLOCK



LID CASSETTE



MECHANISM DECK BLOCK



SECTION 3 MECHANICAL ADJUSTMENTS

PRECAUTIONS:

1. Clean the following parts with a denatured-alcoholmoistened swab:
 record/playback head pinch roller
 erase head rubber belts
 capstan idler
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustment.
4. After the adjustment, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

• Torque Measurement

Mode	Torque meter	Meter reading	
FWD	CQ-102C	30 to 65 g•cm (0.42 to 0.90 oz•inch)	
FWD Back tension		DECK A	1 to 6 g•cm (0.014 to 0.08 oz•inch)
		DECK B	2 to 9 g•cm (0.028 to 0.124 oz•inch)
REV	CQ-102RC	30 to 65 g•cm (0.42 to 0.90 oz•inch)	
REV Back tension		1 to 6 g•cm (0.014 to 0.08 oz•inch)	
FF, REW	CQ-201B	70 to 120 g•cm (0.98 to 1.66 oz•inch)	

SECTION 4 ELECTRICAL ADJUSTMENTS

1. The adjustment should be performed in the publication.
(Be sure to make playback adjustment at first.)
2. The adjustment and measurement should be performed for both L-CH and R-CH.
 - Switch position
DOLBY NR switch : OFF

• Test Tape

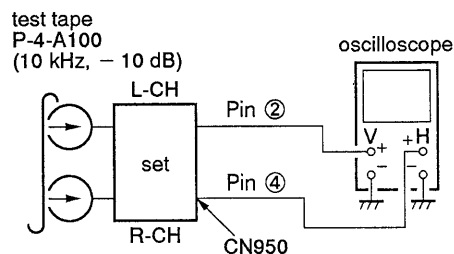
Tape	Contents	Used for
P-4-A100	10 kHz, - 10 dB	Head Azimuth Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment

$$0 \text{ dB} = 0.775 \text{ V}$$

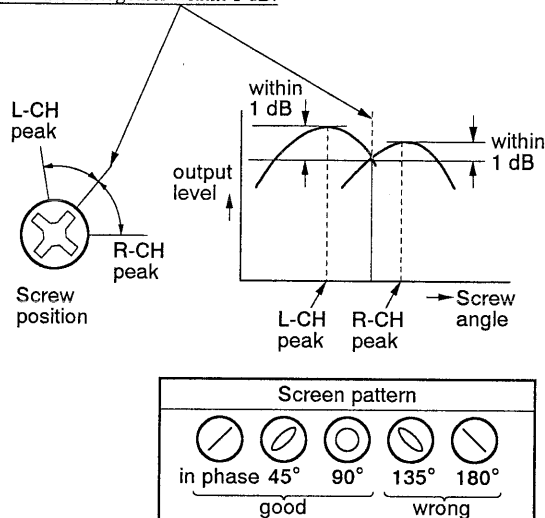
Record/Playback Head Azimuth Adjustment DECK A DECK B

Procedure:

1. FWD/REV: Playback Mode

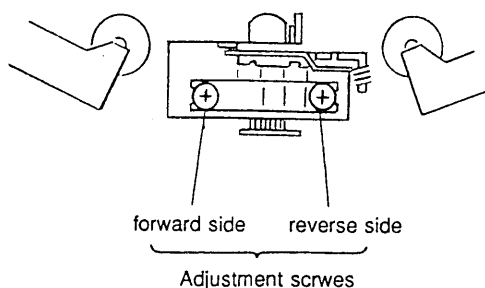


- Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1 dB.



- Change the REV playback mode and repeat the step 1 to 2.
- After the adjustments, lock the adjustment screw with suitable locking compound.

Adjustment Location:

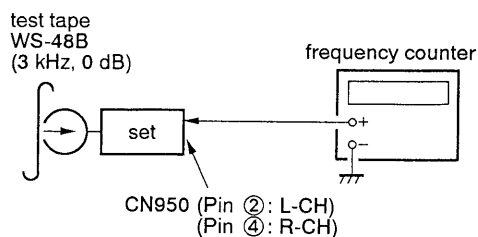


Tape Speed Adjustment **DECK A** **DECK B**

Procedure:

- Perform high speed adjustment before normal speed adjustment.

Mode: playback



(High Speed Adjustment)

- Short-circuit CN902 (TC board) when the power off.
- Turn on the power, press the DUB switch, and set high speed playback.
- Set decks A and B into the FWD mode.
- Adjust deck A: RV72A (H) and deck B: RV72B (H) so that the reading of the frequency counter becomes the adjustment value.
- After adjusting, short-circuit CN902.

(Normal Speed Adjustment)

- Set the FWD playback mode.
- Adjust deck A: RV71A (N), deck B: RV71B (N) so that the reading of the frequency counter becomes the adjustment value.

Adjustment Values:

High Speed	$6,000 \pm 20 \text{ Hz}$
Normal Speed	$3,000 \pm 10 \text{ Hz}$

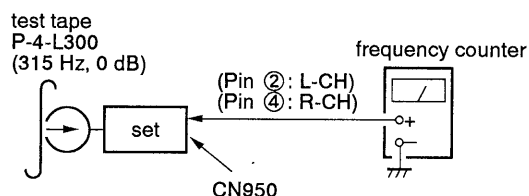
Adjust so that the difference between tape top and tape end is within 3%.
Adjust so that the deviation between the speeds of deck A and deck B at the tape top is within 1.0%.

Adjustment Location: AUDIO (A), (B) boards

Playback Level Adjustment **DECK A** **DECK B**

Procedure:

Mode: playback



Adjust deck A: RV11A (L-CH) and RV21A (R-CH), deck B: RV11B (L-CH) and RV21B (R-CH) so that within the adjustment values specified.
The output level is within the adjustment values specified.

Adjustable Level:

CN950 level: $-7.7 \text{ dB} \pm 0.5 \text{ dB}$ (0.30 to 0.34 V)

Level Difference between Channels: within 1.0 dB

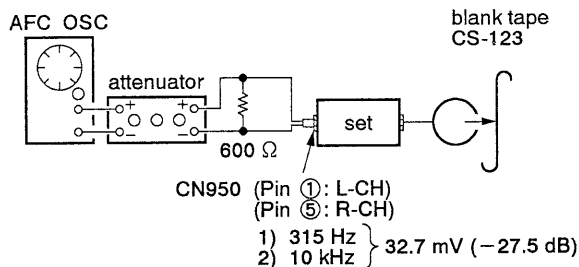
Confirm the level does not change in playback mode while changing the mode from playback to stop several time.

Adjustment Location: AUDIO (A), (B) boards

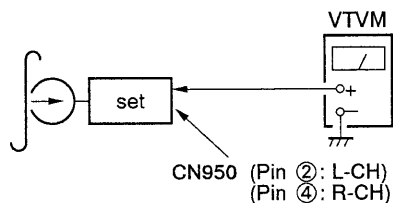
Record BIAS Adjustment **DECK B**

Procedure:

1. Mode: record



2. Mode: playback



Confirm playback the signal recorded in step 1 become adjustment level as follows.

If these levels do not adjustment level, adjust the RV12 (L-CH) and RV22 (R-CH) to repeat step 1 and 2.

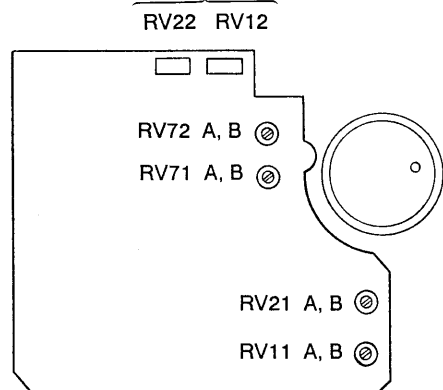
Adjustment Level: Playback output of 10 kHz to playback output of 315 Hz: ± 0.5 dB.

Adjustment Location: AUDIO (B) board

Adjusting Parts Location:

[AUDIO (A), AUDIO (B) Board] – Conductor Side –

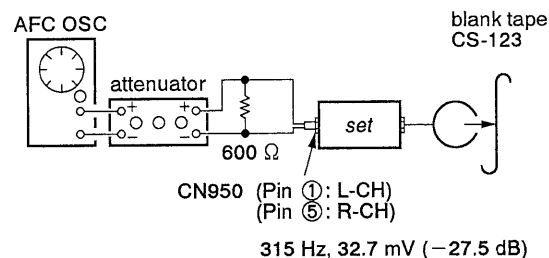
(AUDIO (B) ONLY)



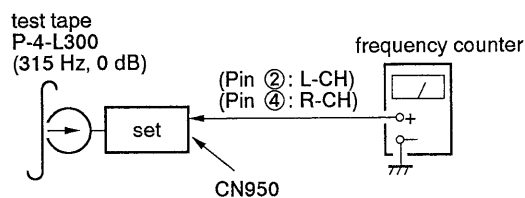
Record Level Adjustments **DECK B**

Procedure:

1. Mode: record



2. Mode: playback



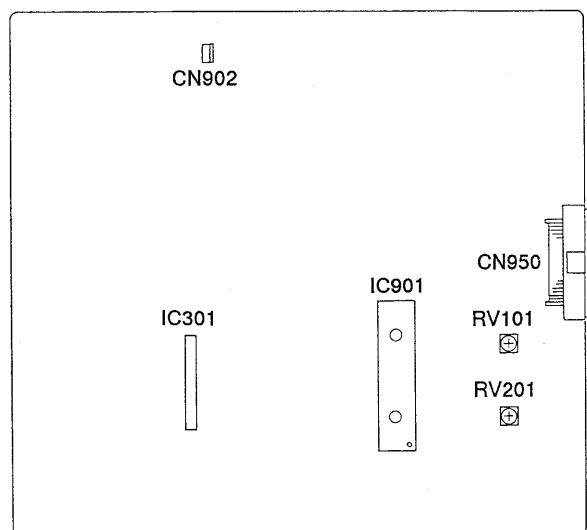
Confirm playback the signal recorded in step 1 become adjustment level as follows.

If these levels do not adjustment level, adjust the RV101 (L-CH) and RV201 (R-CH) to repeat step 1 and 2.

Adjustment Level:
CN950 PB level: -27.5 dB ± 0.5 dB (31 to 35 mV).

Adjustment Location: MAIN board

[MAIN Board] – Component Side –



SECTION 5 DIAGRAMS

5-1. IC PIN FUNCTION DESCRIPTION

MAIN BOARD IC901 M50964-261FP (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Function																																				
1	G	—	} GND																																				
2	G	—																																					
3	G	—																																					
4	—	—	+5V																																				
5	NORM/HIGH	—	Tape speed "H"=High speed "L"=Normal speed																																				
6	B HALF	I	Deck B record prevention claw A, B detection input (Analog) <table><tr><td>Voltage (V)</td><td>1V</td><td>1.9V</td><td>2.8V</td><td>3.9V</td><td>5V</td></tr><tr><td>Half</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td></tr><tr><td>E. PROOF A</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td></tr><tr><td>E. PROOF B</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td></tr></table>	Voltage (V)	1V	1.9V	2.8V	3.9V	5V	Half	ON	ON	ON	ON	OFF	E. PROOF A	OFF	ON	OFF	ON	OFF	E. PROOF B	ON	ON	OFF	OFF	OFF												
Voltage (V)	1V	1.9V	2.8V	3.9V	5V																																		
Half	ON	ON	ON	ON	OFF																																		
E. PROOF A	OFF	ON	OFF	ON	OFF																																		
E. PROOF B	ON	ON	OFF	OFF	OFF																																		
7	KEY Y	I	KEY input <table><tr><td>Voltage (V)</td><td>0</td><td>0.3</td><td>0.7</td><td>1.2</td><td>1.7</td><td>2.3</td><td>2.8</td><td>3.4</td><td>4.0</td><td>4.5</td><td>5.0</td></tr><tr><td>KEY Y</td><td>B ■</td><td>B ■</td><td>B ►</td><td>B ◄</td><td></td><td>A ◄◄</td><td>A ►►</td><td></td><td></td><td>RELAY</td><td>OFF</td></tr><tr><td>KEY X</td><td>A ■</td><td>A ►</td><td>A ◄</td><td>B ◄◄</td><td>B ►►</td><td>B ●</td><td>DUB</td><td></td><td>CD</td><td></td><td></td></tr></table>	Voltage (V)	0	0.3	0.7	1.2	1.7	2.3	2.8	3.4	4.0	4.5	5.0	KEY Y	B ■	B ■	B ►	B ◄		A ◄◄	A ►►			RELAY	OFF	KEY X	A ■	A ►	A ◄	B ◄◄	B ►►	B ●	DUB		CD		
Voltage (V)	0	0.3	0.7	1.2	1.7	2.3	2.8	3.4	4.0	4.5	5.0																												
KEY Y	B ■	B ■	B ►	B ◄		A ◄◄	A ►►			RELAY	OFF																												
KEY X	A ■	A ►	A ◄	B ◄◄	B ►►	B ●	DUB		CD																														
8	KEY X	I																																					
9	AMS IN	I	AMS signal input																																				
10	LM ON/OFF	O	Line mute output																																				
11	RM ON/OFF	O	Mute output																																				
12	RELAY ON/OFF	O	REC/PB change relay output																																				
13	REC/PB	O	Dolby IC REC/PB select output																																				
14	EQ70	O	Playback EQ output for playing deck (Not used)																																				
15	SEL A/B	O	Dolby IC PB input Deck A/B select output																																				
16	AMS MUTE	O	AMS mute output																																				
17	AU BUS	I	AUDIO BUS input																																				
18	BIAS ON/OFF	O	Bias oscillation output																																				
19	AUB OUT	O	AUDIO BUS output																																				
20	A BUS	I	AUDIO BUS normal input																																				
21	NC	—	Not used																																				
22	NC	—	} GND																																				
23	NC	—																																					
24	Vss	—																																					
25	RESET	I	Microcomputer reset input																																				
26	XIN	I	Clock input (4 MHz)																																				
27	XOUT	O	Clock output (4 MHz)																																				
28	φ	O	Not used (open)																																				
29	Vss	—	} GND																																				
30	PW IN	I																																					
31	A STOP	I	Deck A STOP switch input																																				
32	A HALF	I	Deck A Half switch input																																				
33	A SHUT	I	Deck A Reel table signal input																																				
34	A70 U	I	GND																																				
35	B STOP	I	Deck B STOP switch input																																				

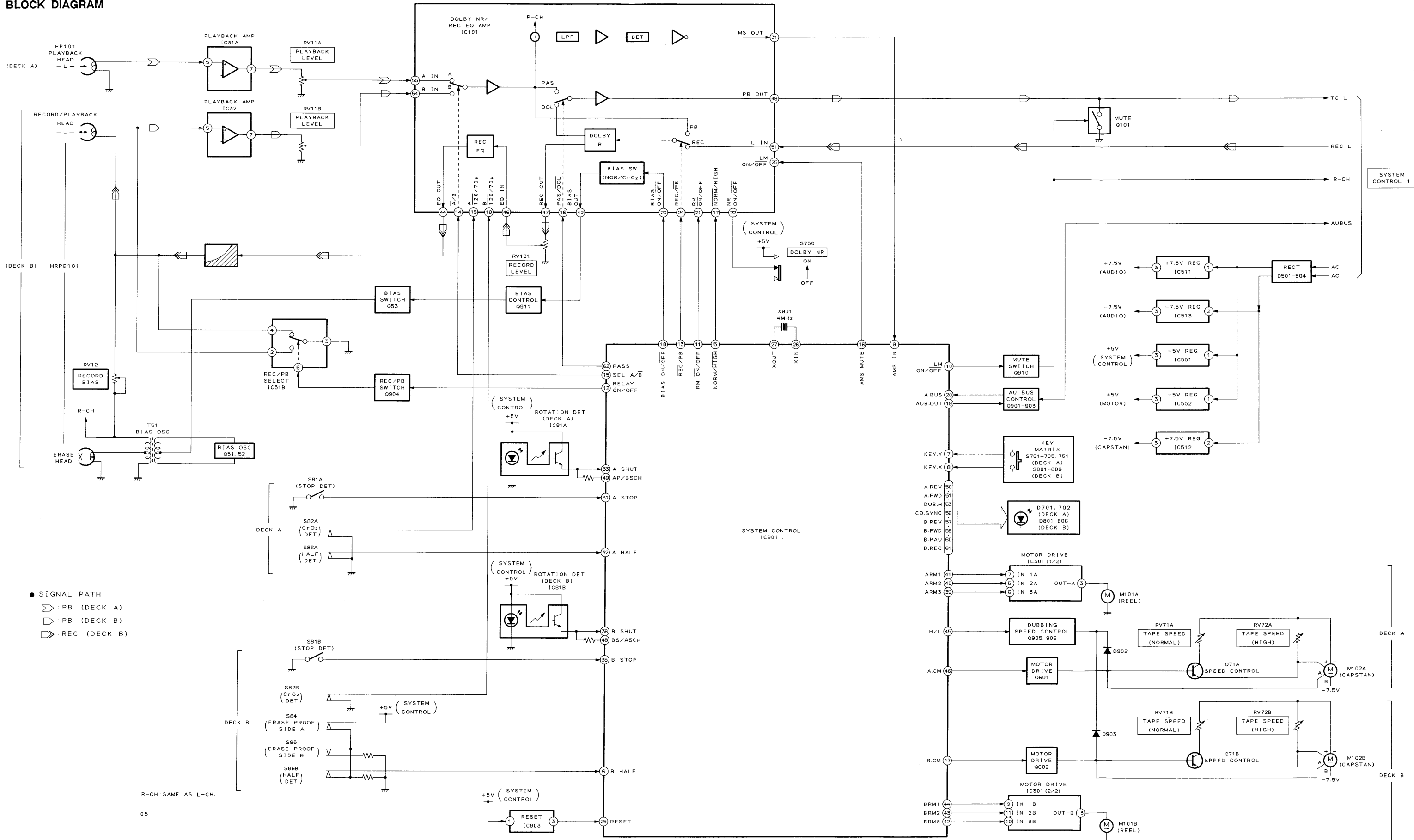
Pin No.	Pin Name	I/O	Function
36	B SHUT	I	Deck B Reel table signal input
37	B70 U	I	+5V
38	NC	—	Not used
39	ARM 3	O	Deck A Reel Motor control out
40	ARM 2	O	
41	ARM 1	O	
42	BRM 3	O	Deck B Reel Motor control out
43	BRM 2	O	
44	BRM 1	O	
45	H/L	O	Capstan motor speed select
46	A CM	O	A Capstan motor ON/OFF
47	B CM	O	B Capstan motor ON/OFF
48	BS/ASCH	I	Deck B Reel table/BS signal input
49	AP/BSCH	I	Deck A Reel table/AP signal input
50	A REV	O	Deck A RVS LED output
51	A FWD	O	Deck A FWD LED output
52	A PLAY	O	Deck B RVS/FWD LED control output (Not used)
53	DUB H	O	High Speed Dubbing LED output
54	DUB N	O	Normal Speed Dubbing LED output (Not used)
55	NC	—	Not used
56	CD SYNC	O	Auto CD Synchro LED output
57	B REV	O	Deck B RVS LED output
58	B FWD	O	Deck B FWD LED output
59	B PLAY	O	Deck B RVS/FWD LED control output (Not used)
60	B PAUSE	O	Deck B PAUSE LED output
61	B REC	O	Deck B REC LED output
62	PASS	O	PASS amplifier switch output
63	TEST	I	Electrical adjustment test mode setting
64	NC	—	+5 V
65	Vss	—	GND
66	NC	—	Not used
67	Vcc	—	POWER 5 ± 0.5V
68	AVss	—	Analog system GND
69	VREF	I	Analog system reference voltage input
70	DAC	—	GND
71	—	—	
72	—	—	

[TEST MODE]

When making pin ③ low (connect pin ① of CN902 to ground with jumper wire), following function operates.

1. Source monitor
Release the line mute while recording.

5-2. BLOCK DIAGRAM



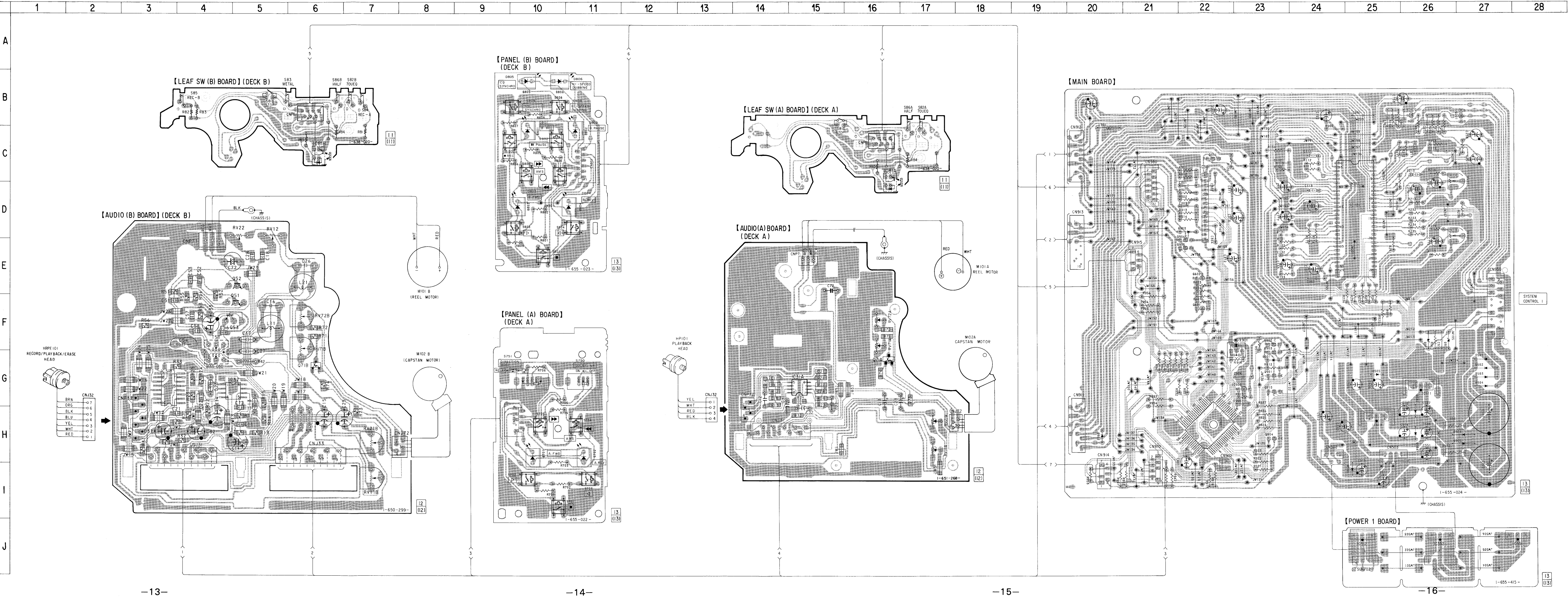
5-3. PRINTED WIRING BOARDS

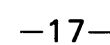
Semiconductor Location

Ref. No.	Location
D501	G-27
D502	G-27
D503	G-27
D504	G-27
D582	H-26
D584	H-26
D586	I-25
D701	H-10
D702	H-11
D801	C-10
D802	C-11
D803	D-10
D804	D-11
D805	B-10
D806	B-10
D901	G-23
D902	H-20
D903	D-22
D904	H-27
D905	H-27
D911	F-26
D912	F-26
IC31A	G-15
IC31B	G-3
IC32	G-5
IC81A	C-16
IC81B	C-6
IC101	D-25
IC301	D-22
IC511	G-26
IC512	J-25
IC513	H-25
IC551	J-28
IC552	J-26
IC901	H-22
IC903	G-23
Q51	F-5
Q52	F-5
Q53	F-4
Q71A	G-16
Q81B	G-6
Q101	B-26
Q201	B-27
Q601	F-22
Q602	F-22
Q901	G-23
Q902	F-23
Q903	G-23
Q904	H-23
Q905	F-22
Q906	F-22
Q910	G-23
Q911	C-22

Note:

- : parts extracted from the component side.
- : Jumper wire connected to the ground pattern on the component side.
- : internal component.





SECTION 6

EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE) ... (RED)

↑ Parts Color ↑ Cabinet's Color

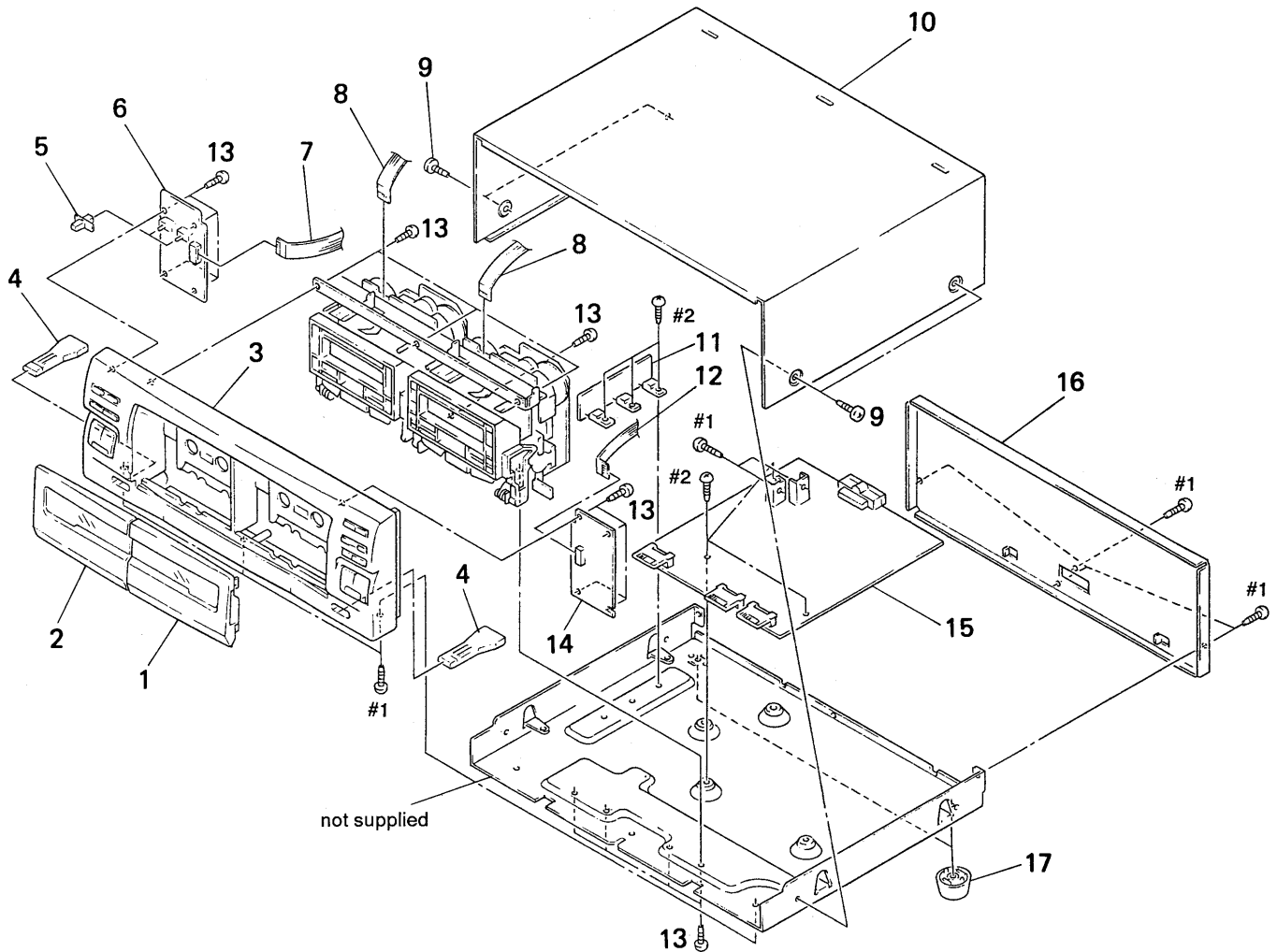
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- The mechanical parts with no reference number in the exploded views are not supplied.

- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

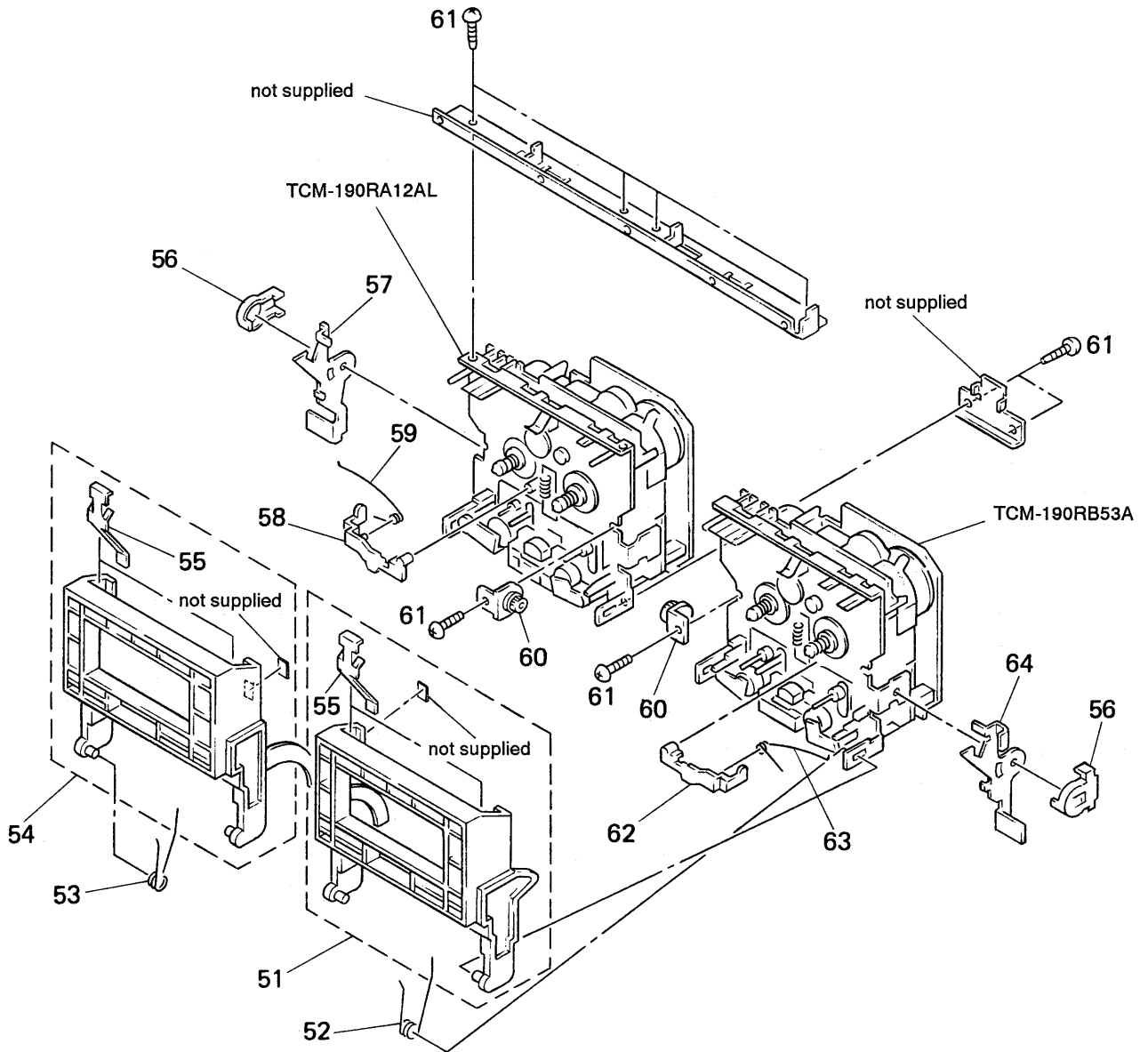
- Abbreviation
IT : Italian
G : German
AR : Argentine
SP : Singapore
MY : Malaysia
EE : East European
AU : Australian
EA : Saudi Arabia
MX : Mexican

(1) CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-3369-643-1	LID (B DECK) ASSY, CASSETTE		* 11	1-655-415-13	POWER 1 BOARD	
2	X-3369-642-1	LID (A DECK) ASSY, CASSETTE		12	1-590-488-11	WIRE, FLAT TYPE (11 CORE)	
3	X-3369-668-1	PANEL ASSY, FRONT		13	4-951-620-01	SCREW (2.6X8), +BVTP	
4	3-918-281-01	BUTTON (EJECT)		* 14	1-655-023-13	PANEL (B) BOARD	
5	4-962-707-01	KNOB, SLIDE		* 15	A-2007-332-A	MAIN BOARD, COMPLETE	
* 6	1-655-022-13	PANEL (A) BOARD		* 16	3-918-326-01	PANEL, BACK (AEP, UK, IT, G)	
7	1-769-664-11	WIRE (FLAT TYPE) (9 CORE)		* 16	3-918-326-11	PANEL, BACK (E, AR, SP, MY, EE)	
8	1-590-574-11	WIRE, FLAT TYPE (7 CORE)		* 16	3-918-326-21	PANEL, BACK (AU, EA, PX, MX)	
9	3-363-099-01	SCREW (CASE 3 TP2)		17	X-4941-228-1	FOOT ASSY	
10	4-969-778-31	CASE					

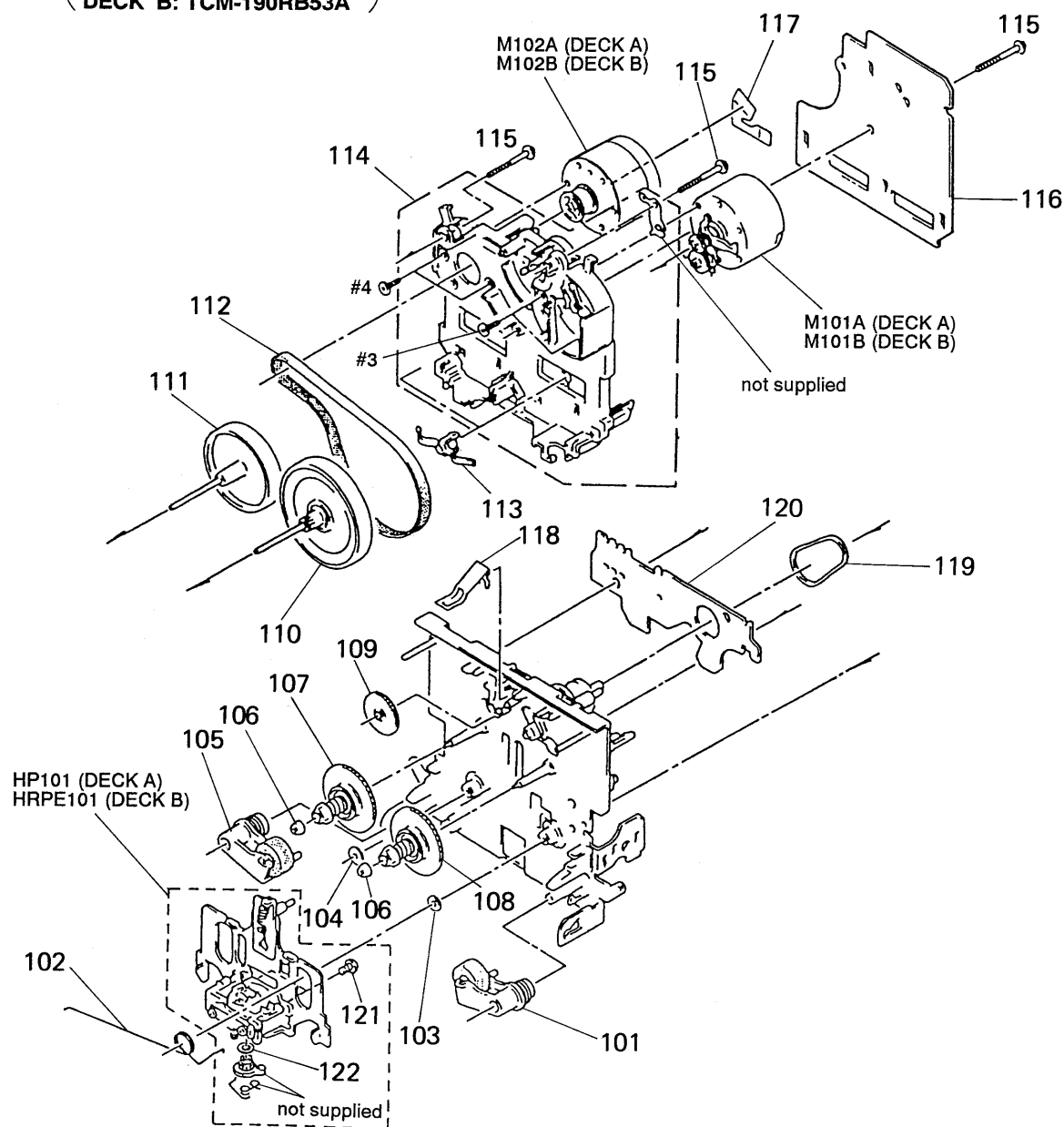
(2) MECHANISM DECK CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	A-4325-164-A	HOLDER (R) ASSY, CASSETTE		58	3-354-955-01	LEVER (EJ SAFTY LEVER L)	
52	3-354-960-01	SPRING (LOADING R), TORSION		59	3-354-961-01	SPRING (EJ SAFTY SPRING L)	
53	3-354-959-01	SPRING (LOADING L), TORSION		60	3-354-963-01	DAMPER	
54	A-4325-163-A	HOLDER (L) ASSY, CASSETTE		61	4-951-620-01	SCREW (2. 6X8), +BVTP	
55	3-308-823-11	DETENT, CASSETTE		62	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
56	3-354-957-01	JOINT (LOCK LEVER)		63	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
* 57	3-354-953-01	LEVER (LOCK LEVER L)		* 64	3-354-954-01	LEVER (LOCK LEVER R)	

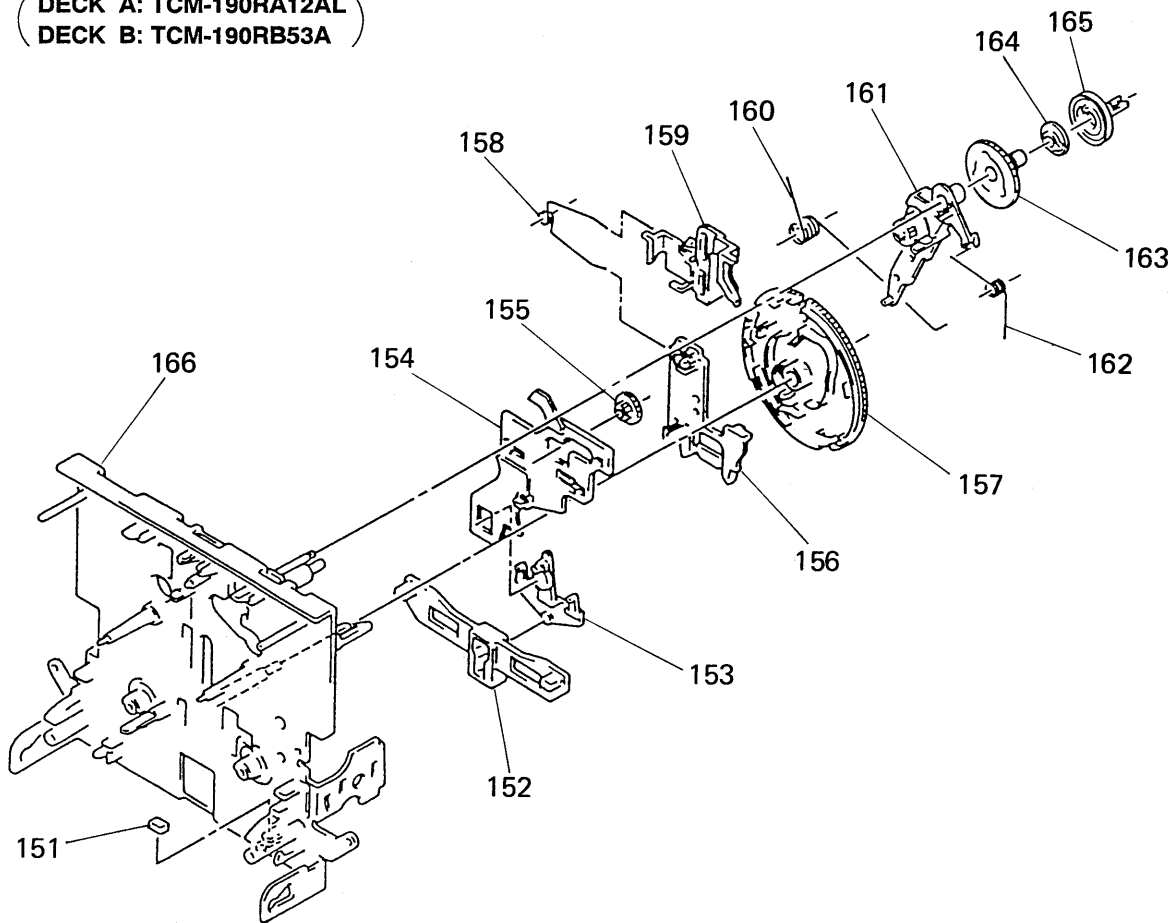
(3) MECHANISM DECK SECTION-1

(DECK A: TCM-190RA12AL)
(DECK B: TCM-190RB53A)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	X-3366-047-1	LEVER (PINCH F) ASSY		* 116	A-2007-134-A	AUDIO BOARD, COMPLETE (DECK B)	
102	3-907-362-01	SPRING, TORSION		* 116	A-2007-266-A	AUDIO BOARD, COMPLETE (DECK A)	
103	3-356-713-01	WASHER		117	1-638-983-11	MOTOR FLEXIBLE BOARD	
104	3-356-714-01	WASHER		118	3-359-430-01	SPRING (CASSETTE RETAINER), LEAF	
105	X-3366-048-1	LEVER (PINCH R) ASSY		119	3-359-466-01	BELT (FR), SQUARE	
106	3-362-308-01	CAP (REEL)		* 120	1-638-020-11	LEAF SW BOARD (DECK A)	
107	X-3366-971-1	TABLE ASSY (B), REEL		* 120	1-638-020-11	LEAF SW BOARD (DECK B)	
108	X-3366-970-1	TABLE ASSY, REEL		121	3-388-848-01	SCREW (P2X6) (B TIGHT)	
109	3-359-424-01	GEAR (REV GEAR)		122	3-701-440-11	WASHER, 3.5 (DECK B)	
110	X-3367-629-1	FLYWHEEL (FWD) ASSY		122	3-701-440-21	WASHER, 3.5 (DECK A)	
111	X-3359-410-1	FLYWHEEL (REV) ASSY (DECK A)		HP101	A-2003-757-A	BASE ASSY, HEAD (DECK A)	
111	X-3367-630-1	FLYWHEEL (REV) ASSY (DECK B)		HRPE101A	2003-930-A	BASE ASSY, HEAD (DECK B)	
112	3-359-417-01	BELT (FLAT), CAPSTAN		M101A	X-3363-501-2	MOTOR ASSY (REEL) (DECK A)	
113	3-575-321-00	RETAINER, THRUST, CAPSTAN		M101B	X-3363-501-2	MOTOR ASSY (REEL) (DECK B)	
114	3-359-436-11	BASE (THRUST RETAINER), FITTING		M102A	X-3365-377-2	MOTOR ASSY (CAPSTAN) (DECK A)	
115	3-359-414-01	SCREW (+PTPHW 2X23)		M102B	X-3365-377-2	MOTOR ASSY (CAPSTAN) (DECK B)	

(4) MECHANISM DECK SECTION-2
 (DECK A: TCM-190RA12AL)
 (DECK B: TCM-190RB53A)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	3-359-469-01	SPACER		159	3-359-429-11	SLIDER (BRAKE PLATE) (DECK B)	
152	3-359-425-01	SLIDER (REVERSE SLIDER)		160	3-359-456-01	SPRING (TRIGGER SPRING), TORSION	
153	3-359-426-01	LEVER (REVERSE LEVER)		161	X-3366-569-1	ARM ASSY, FR	
* 154	3-359-415-01	SLIDER (TRIGGER SLIDER) (DECK A)		162	3-924-185-11	SPRING (FR ARM), TORSION	
* 154	3-359-415-11	SLIDER (TRIGGER SLIDER) (DECK B)		163	3-359-419-11	GEAR (FR GEAR)	
155	3-359-448-01	GEAR (TRIGGER)		164	3-359-421-01	CLUTCH (REEL DISK)	
156	3-359-427-01	SLIDER (LEVERSE SLIDER)		165	3-359-418-01	PULLEY (FR PULLEY)	
157	3-359-420-01	GEAR (CAM GEAR)		166	X-3359-415-1	CHASSIS ASSY, MECHANICAL (DECK A)	
158	3-359-454-01	SPRING, TORSION		166	X-3363-790-1	CHASSIS ASSY, MECHANICAL (DECK B)	
159	3-359-429-01	SLIDER (BRAKE PLATE) (DECK A)					

SECTION 7

ELECTRICAL PARTS LIST

AUDIO (A)

AUDIO (B)

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA ... μ A. uPA... μ PA.
uPB... μ PB. uPC... μ PC. uPD... μ PD.
- CAPACITORS
uF: μ F
- COILS
uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark
*	A-2007-266-A	AUDIO (A) BOARD, COMPLETE (DECK A)	

		< CAPACITOR >	
C11	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
C12	1-136-157-00	FILM 0.022uF	5% 50V
C13	1-124-234-00	ELECT 22uF	20% 16V
C18	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C21	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
C22	1-136-157-00	FILM 0.022uF	5% 50V
C23	1-124-234-00	ELECT 22uF	20% 16V
C28	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C31	1-124-234-00	ELECT 22uF	20% 16V
C32	1-124-234-00	ELECT 22uF	20% 16V
C72	1-124-499-11	ELECT, NONPOLAR 1uF	20% 50V
		< CONNECTOR >	
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD	
CNJ72	1-764-902-11	CONNECTOR, FFC/FPC 4P	
* CNP32	1-580-772-11	PIN, CONNECTOR (PC BOARD) 4P	
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P	
		< IC >	
IC31A	8-759-106-02	IC uPC4570G2	
		< JUMPER RESISTOR >	
JW1	1-216-295-00	CONDUCTOR, CHIP	
JW51	1-216-296-00	METAL CHIP 0	5% 1/8W
JW52	1-216-296-00	METAL CHIP 0	5% 1/8W
JW53	1-216-296-00	METAL CHIP 0	5% 1/8W
JW54	1-216-296-00	METAL CHIP 0	5% 1/8W
		< TRANSISTOR >	
Q71A	8-729-216-22	TRANSISTOR 2SA1162	
		< RESISTOR >	
R11	1-216-099-00	METAL CHIP 120K	5% 1/10W
R12	1-216-025-00	METAL GLAZE 100	5% 1/10W
R13	1-216-100-00	METAL GLAZE 130K	5% 1/10W

Ref. No.	Part No.	Description	Remark
R14	1-216-068-00	METAL CHIP 6.2K	5% 1/10W
R21	1-216-099-00	METAL CHIP 120K	5% 1/10W
R22	1-216-025-00	METAL GLAZE 100	5% 1/10W
R23	1-216-100-00	METAL GLAZE 130K	5% 1/10W
R24	1-216-068-00	METAL CHIP 6.2K	5% 1/10W
R31	1-216-033-00	METAL CHIP 220	5% 1/10W
R32	1-216-033-00	METAL CHIP 220	5% 1/10W
R71	1-216-082-00	METAL GLAZE 24K	5% 1/10W
R72	1-216-081-00	METAL CHIP 22K	5% 1/10W
R73	1-216-089-00	METAL CHIP 47K	5% 1/10W
R74	1-216-089-00	METAL CHIP 47K	5% 1/10W
R807	1-249-417-11	CARBON 1K	5% 1/4W
R808	1-249-426-11	CARBON 5.6K	5% 1/4W
		< VARIABLE RESISTOR >	
RV11A	1-241-761-11	RES, ADJ, CARBON 1K	
RV21A	1-241-761-11	RES, ADJ, CARBON 1K	
RV71A	1-241-630-11	RES, ADJ, CARBON 10K	
RV72A	1-241-630-11	RES, ADJ, CARBON 10K	

*	A-2007-134-A	AUDIO (B) BOARD, COMPLETE (DECK B)	

		< CAPACITOR >	
C11	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
C12	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C13	1-136-153-00	FILM 0.01uF	5% 50V
C14	1-126-177-11	ELECT 100uF	20% 10V
C15	1-124-234-00	ELECT 22uF	20% 16V
C16	1-136-273-00	FILM 75PF	5% 630V
C17	1-164-080-11	CERAMIC 390PF	10% 50V
C18	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
C21	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
C22	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C23	1-136-153-00	FILM 0.01uF	5% 50V
C24	1-126-177-11	ELECT 100uF	20% 10V
C25	1-124-234-00	ELECT 22uF	20% 16V
C26	1-136-273-00	FILM 75PF	5% 630V
C27	1-164-080-11	CERAMIC 390PF	10% 50V

AUDIO (B)

Ref. No.	Part No.	Description	Remark
C28	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
C31	1-124-234-00	ELECT 22uF	20% 16V
C32	1-124-234-00	ELECT 22uF	20% 16V
C33	1-124-234-00	ELECT 22uF	20% 16V
C51	1-163-019-00	CERAMIC CHIP 0.0068uF	10% 50V
C52	1-163-019-00	CERAMIC CHIP 0.0068uF	10% 50V
C53	1-163-022-00	CERAMIC CHIP 0.012uF	10% 50V
C54	1-136-559-11	FILM 0.0047uF	5% 630V
C56	1-164-505-11	CERAMIC CHIP 2.2uF	16V
C57	1-164-346-11	CERAMIC CHIP 1uF	16V
C58	1-163-024-00	CERAMIC CHIP 0.018uF	10% 50V
C72	1-124-499-11	ELECT, NONPOLAR 1uF	20% 50V

< CONNECTOR >

* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD
* CNJ33	1-580-782-11	CONNECTOR, BOARD TO BOARD
CNJ72	1-764-902-11	CONNECTOR, FFC/FPC 4P
* CNP32	1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P

< IC >

IC31B	8-759-249-21	IC uPC1330GR
IC32	8-759-106-02	IC uPC4570G2

< JUMPER RESISTOR >

JW1	1-216-295-00	CONDUCTOR, CHIP
JW2	1-216-295-00	CONDUCTOR, CHIP
JW11	1-216-296-00	METAL CHIP 0 5% 1/8W
JW12	1-216-296-00	METAL CHIP 0 5% 1/8W
JW13	1-216-296-00	METAL CHIP 0 5% 1/8W
JW14	1-216-296-00	METAL CHIP 0 5% 1/8W
JW15	1-216-296-00	METAL CHIP 0 5% 1/8W
JW16	1-216-296-00	METAL CHIP 0 5% 1/8W
JW17	1-216-296-00	METAL CHIP 0 5% 1/8W
JW18	1-216-296-00	METAL CHIP 0 5% 1/8W
JW19	1-216-296-00	METAL CHIP 0 5% 1/8W
JW20	1-216-296-00	METAL CHIP 0 5% 1/8W
JW21	1-216-296-00	METAL CHIP 0 5% 1/8W
JW22	1-216-296-00	METAL CHIP 0 5% 1/8W
JW23	1-216-296-00	METAL CHIP 0 5% 1/8W
JW24	1-216-296-00	METAL CHIP 0 5% 1/8W
JW25	1-216-296-00	METAL CHIP 0 5% 1/8W
JW26	1-216-296-00	METAL CHIP 0 5% 1/8W
JW27	1-216-296-00	METAL CHIP 0 5% 1/8W

< COIL >

L11	1-410-780-11	INDUCTOR 27uH
L21	1-410-780-11	INDUCTOR 27uH

Ref. No.	Part No.	Description	Remark
		< TRANSISTOR >	
Q51	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q52	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q53	8-729-111-29	TRANSISTOR 2SD1616A-K	
Q71B	8-729-216-22	TRANSISTOR 2SA1162	
		< RESISTOR >	
R11	1-216-099-00	METAL CHIP 120K 5%	1/10W
R12	1-216-033-00	METAL CHIP 220 5%	1/10W
R13	1-216-081-00	METAL CHIP 22K 5%	1/10W
R14	1-216-075-00	METAL CHIP 12K 5%	1/10W
R15	1-216-107-00	METAL CHIP 270K 5%	1/10W

△R16	1-249-430-11	CARBON 12K 5% 1/4W
R21	1-216-099-00	METAL CHIP 120K 5% 1/10W
R22	1-216-033-00	METAL CHIP 220 5% 1/10W
R23	1-216-081-00	METAL CHIP 22K 5% 1/10W
R24	1-216-075-00	METAL CHIP 12K 5% 1/10W
R25	1-216-107-00	METAL CHIP 270K 5% 1/10W
△R26	1-249-430-11	CARBON 12K 5% 1/4W
R31	1-216-033-00	METAL CHIP 220 5% 1/10W
R32	1-216-033-00	METAL CHIP 220 5% 1/10W
R33	1-216-073-00	METAL CHIP 10K 5% 1/10W
△R41	1-249-393-11	CARBON 10 5% 1/4W
△R42	1-249-393-11	CARBON 10 5% 1/4W
R51	1-216-075-00	METAL CHIP 12K 5% 1/10W
R52	1-216-075-00	METAL CHIP 12K 5% 1/10W
R53	1-216-073-00	METAL CHIP 10K 5% 1/10W
R54	1-216-309-00	METAL CHIP 5.6 5% 1/10W
R55	1-216-309-00	METAL CHIP 5.6 5% 1/10W
R56	1-216-298-00	METAL CHIP 2.2 5% 1/10W
R71	1-216-082-00	METAL GLAZE 24K 5% 1/10W
R72	1-216-081-00	METAL CHIP 22K 5% 1/10W
R73	1-216-089-00	METAL CHIP 47K 5% 1/10W
R74	1-216-089-00	METAL CHIP 47K 5% 1/10W

< VARIABLE RESISTOR >

RV11B	1-241-761-11	RES, ADJ, CARBON 1K
RV12	1-238-551-11	RES, ADJ, CARBON 220K
RV21B	1-241-761-11	RES, ADJ, CARBON 1K
RV22	1-238-551-11	RES, ADJ, CARBON 220K
RV71B	1-241-630-11	RES, ADJ, CARBON 10K
RV72B	1-241-630-11	RES, ADJ, CARBON 10K

< TRANSFORMER >

T51	1-406-419-11	COIL, BIAS OSCILLATION
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The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

LEAF SW (A)

LEAF SW (B)

MAIN

Ref.No.	Part No.	Description	Remark
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*	1-638-020-11	LEAF SW (A) BOARD (DECK A)	

< CONNECTOR >

* CNP81	1-568-850-11	SOCKET, CONNECTOR 7P	
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< IC >

IC81A	8-749-924-10	IC PHONT REFLECTOR NJL5165K-B(H1)	
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< RESISTOR >

R84	1-249-417-11	CARBON	1K 5% 1/4W
R85	1-249-408-11	CARBON	180 5% 1/4W

< SWITCH >

S81A	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP)	
S82A	1-571-281-21	SWITCH, LEAF (70 UEQ)	
S86A	1-571-281-21	SWITCH, LEAF (HALF)	

*	1-638-020-11	LEAF SW (B) BOARD (DECK B)	

< CONNECTOR >

* CNP81	1-568-850-11	SOCKET, CONNECTOR 7P	
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< IC >

IC81B	8-749-924-10	IC PHONT REFLECTOR NJL5165K-B(H1)	
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< RESISTOR >

R81	1-249-414-11	CARBON	560 5% 1/4W
R82	1-247-818-11	CARBON	300 5% 1/4W
R83	1-247-834-11	CARBON	1.3K 5% 1/4W
R84	1-249-417-11	CARBON	1K 5% 1/4W
R85	1-249-408-11	CARBON	180 5% 1/4W

< SWITCH >

S81B	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP)	
S82B	1-571-281-21	SWITCH, LEAF (70 UEQ)	
S83B	1-571-281-21	SWITCH, LEAF (METAL)	
S84	1-571-281-21	SWITCH, LEAF (REC-A)	
S85	1-571-281-21	SWITCH, LEAF (REC-B)	

S86B	1-571-281-21	SWITCH, LEAF (HALF)	
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Ref.No.	Part No.	Description	Remark
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*	A-2007-332-A	MAIN BOARD, COMPLETE	

1-537-770-11	TERMINAL BOARD, GROUND		
7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		

< CAPACITOR >

C101	1-124-907-11	ELECT	10uF	20%	50V
C102	1-124-907-11	ELECT	10uF	20%	50V
C111	1-137-368-11	FILM	0.0047uF	5%	50V
C112	1-162-291-31	CERAMIC	560PF	10%	50V
C113	1-137-399-11	FILM	0.1uF	5%	50V

C115	1-124-903-11	ELECT	1uF	20%	50V
C116	1-124-902-00	ELECT	0.47uF	20%	50V
C117	1-124-907-11	ELECT	10uF	20%	50V
C131	1-162-600-11	CERAMIC	0.0047uF	20%	16V
C132	1-162-302-11	CERAMIC	0.0022uF	20%	16V

C133	1-124-902-00	ELECT	0.47uF	20%	50V
C151	1-124-907-11	ELECT	10uF	20%	50V
C152	1-162-286-31	CERAMIC	220PF	10%	50V
C153	1-124-903-11	ELECT	1uF	20%	50V
C211	1-137-368-11	FILM	0.0047uF	5%	50V

C212	1-162-291-31	CERAMIC	560PF	10%	50V
C213	1-137-399-11	FILM	0.1uF	5%	50V
C215	1-124-903-11	ELECT	1uF	20%	50V
C216	1-124-902-00	ELECT	0.47uF	20%	50V
C217	1-124-907-11	ELECT	10uF	20%	50V

C251	1-124-907-11	ELECT	10uF	20%	50V
C252	1-162-286-31	CERAMIC	220PF	10%	50V
C253	1-124-903-11	ELECT	1uF	20%	50V
C301	1-164-159-11	CERAMIC	0.1uF		50V
C302	1-162-290-31	CERAMIC	470PF	10%	50V

C303	1-164-159-11	CERAMIC	0.1uF		50V
C304	1-162-290-31	CERAMIC	470PF	10%	50V
C311	1-124-903-11	ELECT	1uF	20%	50V
C312	1-124-443-00	ELECT	100uF	20%	10V
C313	1-124-443-00	ELECT	100uF	20%	10V

C501	1-124-564-11	ELECT	4700uF	20%	25V
C502	1-124-564-11	ELECT	4700uF	20%	25V
C505	1-124-443-00	ELECT	100uF	20%	10V
C506	1-124-443-00	ELECT	100uF	20%	10V
C507	1-124-903-11	ELECT	1uF	20%	50V

C508	1-124-902-00	ELECT	0.47uF	20%	50V
C511	1-124-443-00	ELECT	100uF	20%	10V
C512	1-124-443-00	ELECT	100uF	20%	10V
C513	1-124-907-11	ELECT	10uF	20%	50V
C514	1-124-907-11	ELECT	10uF	20%	50V

C515	1-124-907-11	ELECT	10uF	20%	50V
C551	1-124-907-11	ELECT	10uF	20%	50V

MAIN

Ref. No.	Part No.	Description	Remark
C552	1-124-443-00	ELECT 100uF	20% 10V
C901	1-124-584-00	ELECT 100uF	20% 10V
C903	1-124-120-11	ELECT 220uF	20% 25V
C911	1-164-159-11	CERAMIC 0.1uF	50V
C990	1-164-159-11	CERAMIC 0.1uF	50V
C991	1-161-494-00	CERAMIC 0.022uF	25V
C992	1-164-159-11	CERAMIC 0.1uF	50V
C993	1-164-159-11	CERAMIC 0.1uF	50V
C994	1-161-494-00	CERAMIC 0.022uF	25V
C995	1-164-159-11	CERAMIC 0.1uF	50V
< CONNECTOR >			
CN502	1-564-506-11	PLUG, CONNECTOR 3P	
* CN503	1-564-507-11	PLUG, CONNECTOR 4P	
* CN902	1-560-060-00	PIN, CONNECTOR 2P	
* CN911	1-580-784-11	CONNECTOR, BOARD TO BOARD	
* CN912	1-580-784-11	CONNECTOR, BOARD TO BOARD	
* CN913	1-580-784-11	CONNECTOR, BOARD TO BOARD	
* CN914	1-568-826-11	SOCKET, CONNECTOR 7P	
* CN915	1-568-826-11	SOCKET, CONNECTOR 7P	
CN950	1-764-017-11	HOUSING, CONNECTOR(PC BOARD)17P	
* CN970	1-568-828-11	SOCKET, CONNECTOR 9P	
* CN980	1-568-830-11	SOCKET, CONNECTOR 11P	
< DIODE >			
D501	8-719-024-99	DIODE 11ES2-NTA2B	
D502	8-719-024-99	DIODE 11ES2-NTA2B	
D503	8-719-024-99	DIODE 11ES2-NTA2B	
D504	8-719-024-99	DIODE 11ES2-NTA2B	
D505	8-719-987-63	DIODE 1N4148M	
D582	8-719-987-63	DIODE 1N4148M	
D584	8-719-987-63	DIODE 1N4148M	
D586	8-719-987-63	DIODE 1N4148M	
D901	8-719-987-63	DIODE 1N4148M	
D902	8-719-987-63	DIODE 1N4148M	
D903	8-719-987-63	DIODE 1N4148M	
D904	8-719-024-99	DIODE 11ES2-NTA2B	
D905	8-719-024-99	DIODE 11ES2-NTA2B	
D911	8-719-933-54	DIODE HZS9A2L	
D912	8-719-933-54	DIODE HZS9A2L	
< IC >			
IC101	8-759-098-75	IC HA12171NT	
IC301	8-759-266-35	IC TA8242AK	
IC511	8-759-604-86	IC M5F7807	
IC513	8-759-604-90	IC M5F7907	
IC901	8-759-250-60	IC M50964-261FP	
IC903	8-759-165-82	IC PST600E-T	

Ref. No.	Part No.	Description	Remark
< COIL >			
L991	1-410-525-11	INDUCTOR 220uH	
< TRANSISTOR >			
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q601	8-729-116-56	TRANSISTOR 2SB1068-L	
Q602	8-729-116-56	TRANSISTOR 2SB1068-L	
Q901	8-729-900-65	TRANSISTOR DTA144ES	
Q902	8-729-900-89	TRANSISTOR DTC144ES	
Q903	8-729-900-89	TRANSISTOR DTC144ES	
Q904	8-729-900-65	TRANSISTOR DTA144ES	
Q905	8-729-900-65	TRANSISTOR DTA144ES	
Q906	8-729-900-89	TRANSISTOR DTC144ES	
Q910	8-729-900-65	TRANSISTOR DTA144ES	
Q911	8-729-119-78	TRANSISTOR 2SC2785-HFE	
< RESISTOR >			
R111	1-249-430-11	CARBON 12K 5% 1/4W	
R112	1-249-431-11	CARBON 15K 5% 1/4W	
R113	1-249-428-11	CARBON 8.2K 5% 1/4W	
R114	1-249-425-11	CARBON 4.7K 5% 1/4W	
R115	1-247-883-00	CARBON 150K 5% 1/4W	
R116	1-247-868-11	CARBON 36K 5% 1/4W	
R120	1-249-431-11	CARBON 15K 5% 1/4W	
R131	1-249-431-11	CARBON 15K 5% 1/4W	
R132	1-249-441-11	CARBON 100K 5% 1/4W	
R133	1-247-887-00	CARBON 220K 5% 1/4W	
R151	1-249-421-11	CARBON 2.2K 5% 1/4W	
R152	1-249-428-11	CARBON 8.2K 5% 1/4W	
R153	1-247-840-00	CARBON 2.4K 5% 1/4W	
R154	1-249-433-11	CARBON 22K 5% 1/4W	
R155	1-249-417-11	CARBON 1K 5% 1/4W	
R210	1-215-451-00	METAL 18K 1% 1/4W	
R211	1-249-430-11	CARBON 12K 5% 1/4W	
R212	1-249-431-11	CARBON 15K 5% 1/4W	
R213	1-249-428-11	CARBON 8.2K 5% 1/4W	
R214	1-249-425-11	CARBON 4.7K 5% 1/4W	
R231	1-249-429-11	CARBON 10K 5% 1/4W	
R232	1-249-429-11	CARBON 10K 5% 1/4W	
R233	1-249-429-11	CARBON 10K 5% 1/4W	
R234	1-249-429-11	CARBON 10K 5% 1/4W	
R235	1-249-429-11	CARBON 10K 5% 1/4W	
R236	1-249-429-11	CARBON 10K 5% 1/4W	
R237	1-249-429-11	CARBON 10K 5% 1/4W	
R238	1-249-429-11	CARBON 10K 5% 1/4W	
R239	1-249-429-11	CARBON 10K 5% 1/4W	
R240	1-249-429-11	CARBON 10K 5% 1/4W	

MAIN	PANEL (A)
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Ref. No.	Part No.	Description	Remark		
R241	1-247-864-11	CARBON	24K	5%	1/4W
R251	1-249-421-11	CARBON	2.2K	5%	1/4W
R252	1-249-428-11	CARBON	8.2K	5%	1/4W
R253	1-247-840-00	CARBON	2.4K	5%	1/4W
R254	1-249-433-11	CARBON	22K	5%	1/4W
R255	1-249-417-11	CARBON	1K	5%	1/4W
R301	1-247-807-31	CARBON	100	5%	1/4W
R302	1-247-807-31	CARBON	100	5%	1/4W
R311	1-249-381-11	CARBON	1	5%	1/4W
R312	1-249-381-11	CARBON	1	5%	1/4W
R313	1-249-381-11	CARBON	1	5%	1/4W
R314	1-249-381-11	CARBON	1	5%	1/4W
△R501	1-217-371-00	FUSIBLE	0.47	10%	1/4W
△R502	1-217-371-00	FUSIBLE	0.47	10%	1/4W
R601	1-249-429-11	CARBON	10K	5%	1/4W
R602	1-249-415-11	CARBON	680	5%	1/4W
R603	1-249-429-11	CARBON	10K	5%	1/4W
R604	1-249-415-11	CARBON	680	5%	1/4W
R911	1-249-425-11	CARBON	4.7K	5%	1/4W
R912	1-249-429-11	CARBON	10K	5%	1/4W
R913	1-249-393-11	CARBON	10	5%	1/4W
R915	1-249-429-11	CARBON	10K	5%	1/4W
R916	1-247-903-00	CARBON	1M	5%	1/4W
R917	1-249-429-11	CARBON	10K	5%	1/4W
R918	1-249-429-11	CARBON	10K	5%	1/4W
R919	1-249-441-11	CARBON	100K	5%	1/4W
R920	1-249-441-11	CARBON	100K	5%	1/4W
R921	1-249-429-11	CARBON	10K	5%	1/4W
R922	1-249-429-11	CARBON	10K	5%	1/4W
R923	1-249-429-11	CARBON	10K	5%	1/4W
R924	1-249-429-11	CARBON	10K	5%	1/4W
R925	1-249-429-11	CARBON	10K	5%	1/4W
R926	1-249-429-11	CARBON	10K	5%	1/4W
R927	1-249-429-11	CARBON	10K	5%	1/4W
R931	1-247-895-00	CARBON	470K	5%	1/4W
R932	1-247-895-00	CARBON	470K	5%	1/4W
R933	1-247-807-31	CARBON	100	5%	1/4W
R934	1-247-807-31	CARBON	100	5%	1/4W
R935	1-249-413-11	CARBON	470	5%	1/4W
R937	1-249-411-11	CARBON	330	5%	1/4W
R938	1-247-807-31	CARBON	100	5%	1/4W
R939	1-247-807-31	CARBON	100	5%	1/4W
R940	1-247-807-31	CARBON	100	5%	1/4W
R941	1-247-811-31	CARBON	150	5%	1/4W
R942	1-249-421-11	CARBON	2.2K	5%	1/4W
R943	1-249-421-11	CARBON	2.2K	5%	1/4W
R951	1-249-429-11	CARBON	10K	5%	1/4W
R952	1-249-425-11	CARBON	4.7K	5%	1/4W
R953	1-249-434-11	CARBON	27K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R954	1-249-429-11	CARBON	10K	5%	1/4W
R955	1-249-425-11	CARBON	4.7K	5%	1/4W
R956	1-249-434-11	CARBON	27K	5%	1/4W
< VARIABLE RESISTOR >					
RV101	1-238-600-11	RES, ADJ, CARBON 10K			
RV201	1-238-600-11	RES, ADJ, CARBON 10K			
< VIBRATOR >					
X901	1-577-358-21	VIBRATOR, CERAMIC (4 MHz)			

*	1-655-022-13	PANEL (A) BOARD			

< CONNECTOR >					
* CN701	1-568-852-11	SOCKET, CONNECTOR 9P			
< DIODE >					
D701	8-719-046-42	DIODE SEL5421E-TH8F			
D702	8-719-046-42	DIODE SEL5421E-TH8F			
< RESISTOR >					
R701	1-247-811-31	CARBON	150	5%	1/4W
R702	1-249-409-11	CARBON	220	5%	1/4W
R703	1-249-418-11	CARBON	1.2K	5%	1/4W
R704	1-249-419-11	CARBON	1.5K	5%	1/4W
R705	1-247-850-11	CARBON	6.2K	5%	1/4W
R706	1-247-858-11	CARBON	13K	5%	1/4W
< SWITCH >					
S701	1-554-303-21	SWITCH, TACTILE (■)			
S702	1-554-303-21	SWITCH, TACTILE (>)			
S703	1-554-303-21	SWITCH, TACTILE (<)			
S704	1-554-303-21	SWITCH, TACTILE (◀)			
S705	1-554-303-21	SWITCH, TACTILE (▶)			
S750	1-571-298-11	SWITCH, SLIDE (DOLBY NR)			
S751	1-571-296-11	SWITCH, SLIDE (DIRECTION MODE)			

The components identified by mark △ or dotted line with mark. △ are critical for safety. Replace only with part number specified.

PANEL (B)

POWER 1

Ref. No.	Part No.	Description	Remark
*	1-655-023-13	PANEL (B) BOARD *****	
		< CONNECTOR >	
* CN801	1-568-854-11	SOCKET, CONNECTOR 11P < DIODE >	
D801	8-719-046-46	DIODE SEL5221S-TH8F	
D802	8-719-046-38	DIODE SEL5821A-TH8F	
D803	8-719-046-42	DIODE SEL5421E-TH8F	
D804	8-719-046-42	DIODE SEL5421E-TH8F	
D805	8-719-046-38	DIODE SEL5821A-TH8F	
D806	8-719-046-46	DIODE SEL5221S-TH8F < RESISTOR >	
R801	1-247-811-31	CARBON 150 5% 1/4W	
R802	1-249-409-11	CARBON 220 5% 1/4W	
R803	1-249-411-11	CARBON 330 5% 1/4W	
R804	1-249-411-11	CARBON 330 5% 1/4W	
R805	1-249-413-11	CARBON 470 5% 1/4W	
R806	1-249-415-11	CARBON 680 5% 1/4W	
R807	1-249-417-11	CARBON 1K 5% 1/4W	
R808	1-249-426-11	CARBON 5.6K 5% 1/4W < SWITCH >	
S801	1-554-303-21	SWITCH, TACTILE (■)	
S802	1-554-303-21	SWITCH, TACTILE (▨)	
S803	1-554-303-21	SWITCH, TACTILE (▷)	
S804	1-554-303-21	SWITCH, TACTILE (◁)	
S805	1-554-303-21	SWITCH, TACTILE (◄◄)	
S806	1-554-303-21	SWITCH, TACTILE (►►)	
S807	1-554-303-21	SWITCH, TACTILE (● REC)	
S808	1-554-303-21	SWITCH, TACTILE (HI-SPEED DUBBING)	
S809	1-554-303-21	SWITCH, TACTILE (CD SYNCHRO)	

*	1-655-415-13	POWER 1 BOARD *****	
		< IC >	
IC512	8-759-604-90	IC M5F7907	
IC551	8-759-231-53	IC M5F7805	
IC552	8-759-231-53	IC M5F7805	

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS *****	
7	1-769-664-11	WIRE (FLAT TYPE) (9 CORE)	
8	1-590-574-11	WIRE, FLAT TYPE (7 CORE)	
12	1-590-488-11	WIRE, FLAT TYPE (11 CORE)	
HP101	A-2003-757-A	BASE ASSY, HEAD (DECK A)	
HRPE101A	2003-930-A	BASE ASSY, HEAD (DECK B)	
M101A	X-3363-501-2	MOTOR ASSY (REEL) (DECK A)	
M101B	X-3363-501-2	MOTOR ASSY (REEL) (DECK B)	
M102A	X-3365-377-2	MOTOR ASSY (CAPSTAN) (DECK A)	
M102B	X-3365-377-2	MOTOR ASSY (CAPSTAN) (DECK B)	

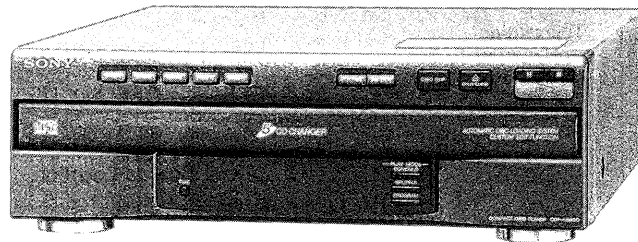
HARDWARE LIST			

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-682-548-04	SCREW +BVTT 3X8 (S)	
#3	7-627-556-08	SCREW +P 2.6X2.8	
#4	7-621-775-00	SCREW +B 2.6X3	

CDP-N550C

SERVICE MANUAL

AEP Model
UK Model
E Model
Australian Model
Chinese Model
PX Model



CDP-N550C is the CD player section in
LBT-N550, N550K, N550P, N650AV.

Model Name Using Similar Mechanism	HCD-N350
Base Unit Type	BU-5BD19
Optical Pick-up Type	KSS-213BA/S-N

SPECIFICATIONS

Laser	Semiconductor laser
Wavelength	780 - 790 nm
Mass	Approx. 4.5 kg
Dimensions	Approx. 355 x 120 x 380 mm (w/h/d, including projections)

COMPACT DISC PLAYER
SONY®

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

CAUTION	: INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO BEAM
ADVARSEL	: USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSÅBRYDERE ER UDE AF FUNKTION UNDGÅ UDSÆTTELSE FOR STRÅLING
VARO!	: AVATTAESSA JA SUOJALUKUTUS CHITTETAESSA OLET ALOITTAJA LASERATTIEN VÄLLE
VARNING	: LASERSTRÅLING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÅREN ÄR URKOPPLAD
ADVARSEL	: USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNDGÅ EKSPONERING FOR STRÅLEN

CAUTION

Notes on chip component replacement

- ## Flexible Circuit Board Repairing

- ## SAFETY-RELATED COMPONENT WARNING !!

TABLE OF CONTENTS

SERVICE NOTE

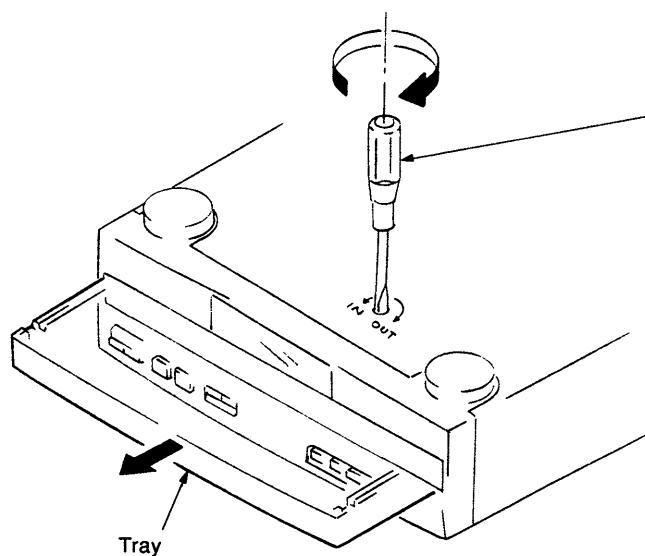
How to confirm the operation with a single unit

- Normally, this set does not operate with a single unit.
The exclusive jig (J-2501-081-A) is necessary to operate the set with a single unit.
The cable attached to set is used for connecting with the jig.

How to turn the power on

-
- Diagram illustrating the connection of the JIG to the Service Box and other components:
- The **SERVICE BOX** has three ports: **IN**, **OUT**, and **SW**.
 - The **JIG** is connected to the **SW** port of the **SERVICE BOX**.
 - The **JIG** is also connected to the **NEW LIBERTY SC-1, SC-2** and the **CDP-N550C**.
 - The **CDP-N550C** is connected to the **JIG** via a cable labeled **CN901 17P**.

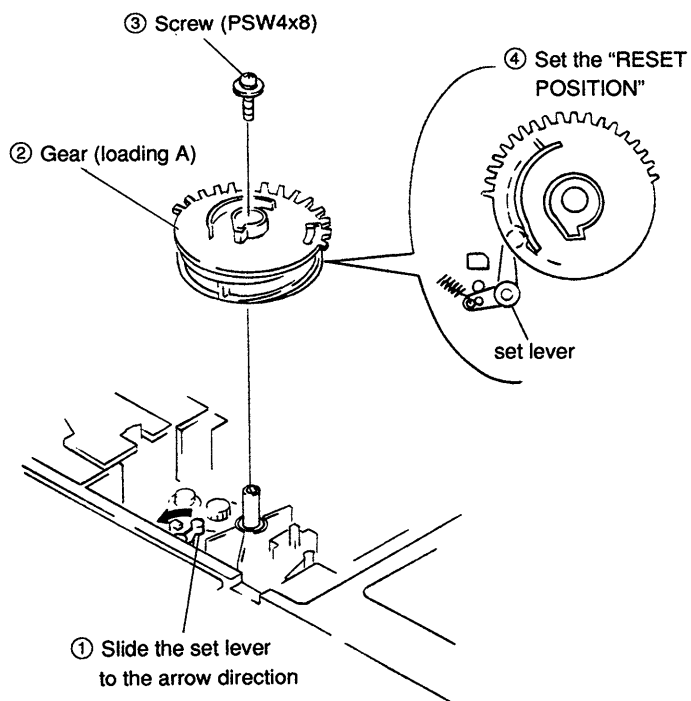
HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF



Insert a tapering driver into the aperture of the unit bottom, and turn in the direction of arrow (to OUT direction).

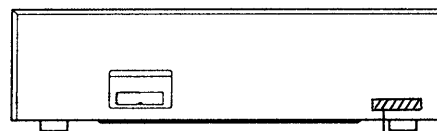
* To close the disc tray, turn the driver in the reverse direction (to IN direction).

NOTE FOR GEAR (LOADING A) INSTALLATION



MODEL IDENTIFICATION

— BACK PANEL —



	Part No.
AEP, UK, G, IT Model	4-969-794-0□
E, AR, MY, SP, CH Model	4-969-794-1□
MX, PX, AUS, EA Model	4-969-794-2□

• Abbreviation

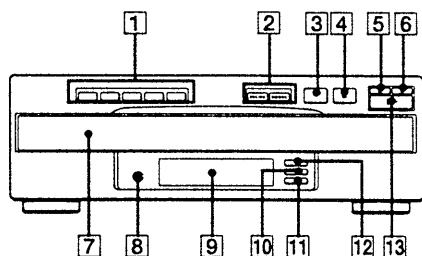
- G : German model.
- IT : Italian model.
- AR : Argentine model.
- MY : Malaysia model.
- SP : Singapore model.
- CH : Chinese model.
- MX : Mexican model.
- AUS : Australian model.
- EA : Saudi Arabia model.

SECTION 1

GENERAL

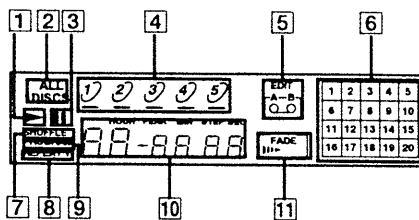
This section is extracted from instruction manual.

Compact disc player



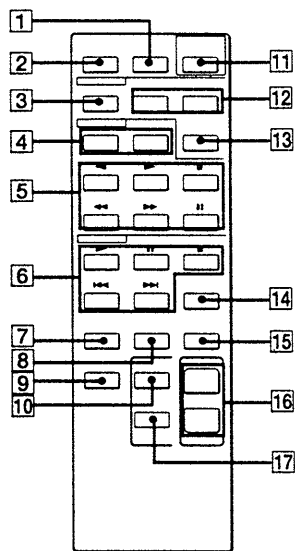
- 1 DISC SELECT 1-5 buttons (8, 9)
- 2 \lll / \ggg buttons (8, 9)
- 3 DISC SKIP button (8)
- 4 \triangle OPEN/CLOSE button (8)
- 5 \parallel (pause) button (8)
- 6 \blacksquare (stop) button (8, 9)
- 7 Disc tray
- 8 TIME button (8)
- 9 Display window (8)
- 10 SHUFFLE button (9)
- 11 PROGRAM button (9)
- 12 CONTINUE button (9)
- 13 \triangleright (play) button (8)

Compact disc player



- 1 Play indication (8)
- 2 ALL DISCS/1 DISC indications (8, 9, 10)
- 3 Pause indication
- 4 Disc calendar (8, 9, 10)
- 5 EDIT indications (16)
- 6 Music calendar (8, 9, 10)
- 7 SHUFFLE indication (9)
- 8 REPEAT indication (10)
- 9 PROGRAM indication (9, 16)
- 10 Playing time indications (8)
- 11 FADE indications

Remote (RM-S500L)



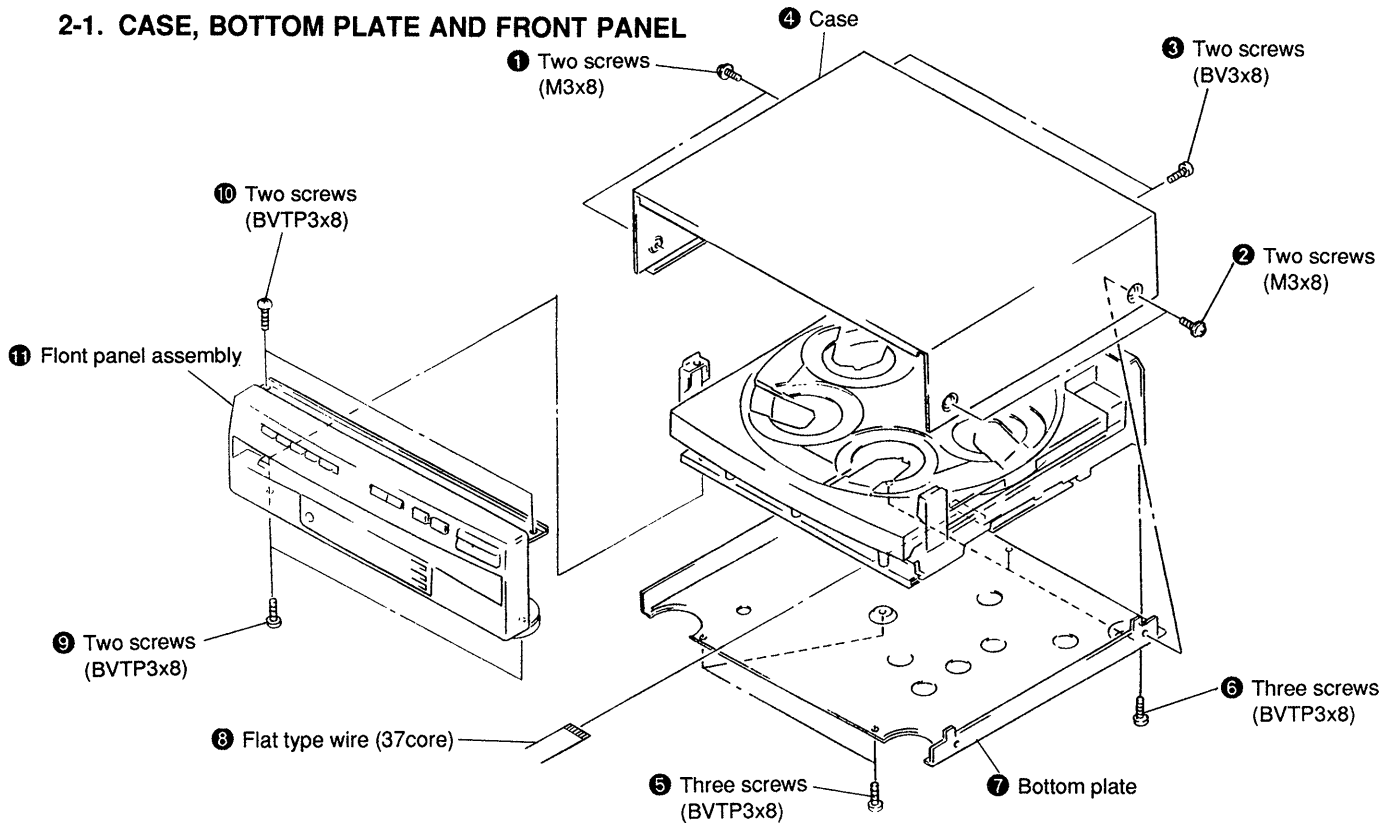
- 1 SLEEP button (21)
- 2 FUNCTION button (7, 14, 15, 18)
- 3 TUNER BAND button (11, 22)
- 4 DECK SELECT buttons (13)
- 5 TAPE operating buttons (13)
 - $\triangleleft / \triangleright$ (reverse side play/front side play)
 - \lll / \ggg (fast leftward/fast rightward)
 - \blacksquare (stop)
 - \parallel (pause)
- 6 CD operating buttons (8)
 - \triangleright (play)
 - \lll / \ggg (AMS*)
 - \parallel (pause)
 - \blacksquare (stop)
- *AMS: Automatic Music Sensor
- 7 CHECK button (10, 16)
- 8 CLEAR button (10)
- 9 DISC SKIP button (8)
- 10 SELECT 1-5 button (19)
- 11 SYSTEM POWER button (7, 8, 11, 13)
- 12 PRESET (+/-) buttons (12)
- 13 STEREO/MONO button (11)
- 14 REPEAT button (10)
- 15 EDIT button (16)
- 16 VOL (volume) buttons (8)
- 17 P.FILE 1-5 button (20)

SECTION 2

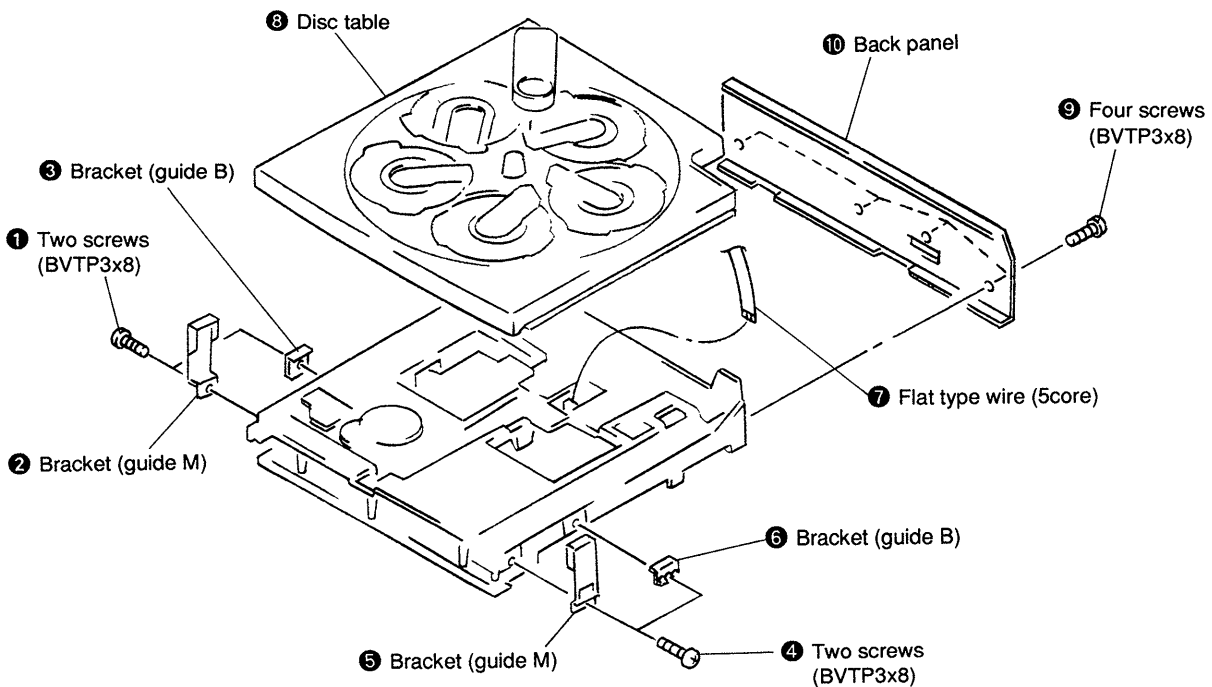
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

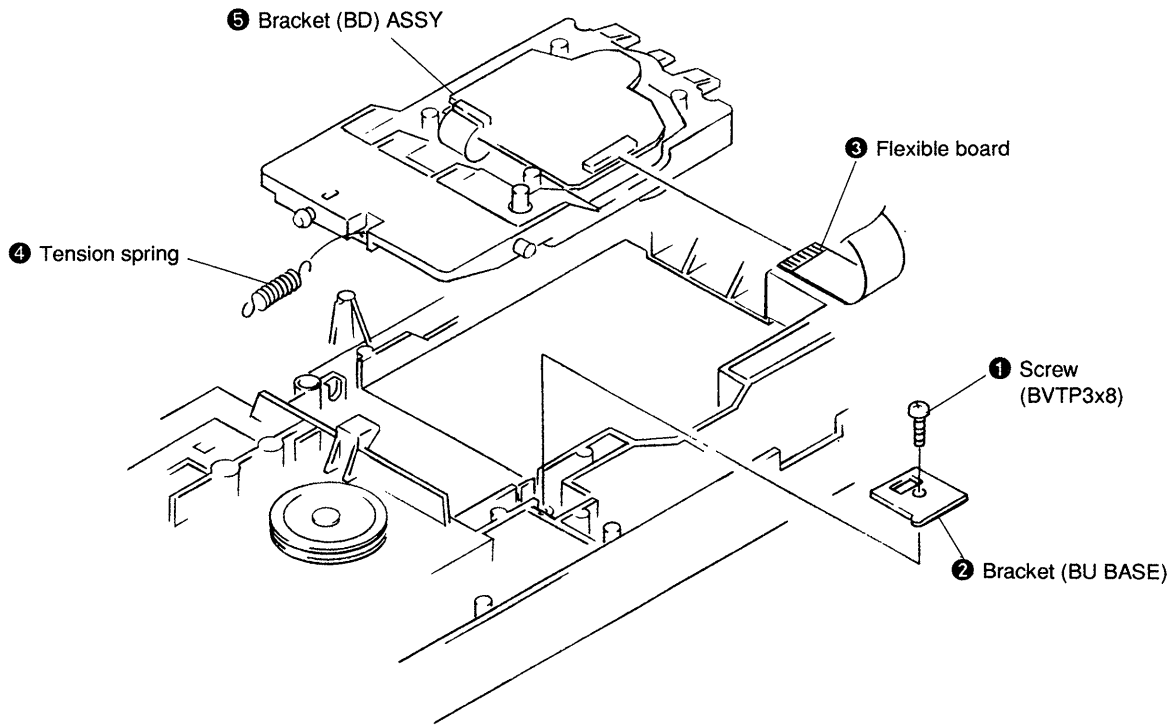
2-1. CASE, BOTTOM PLATE AND FRONT PANEL



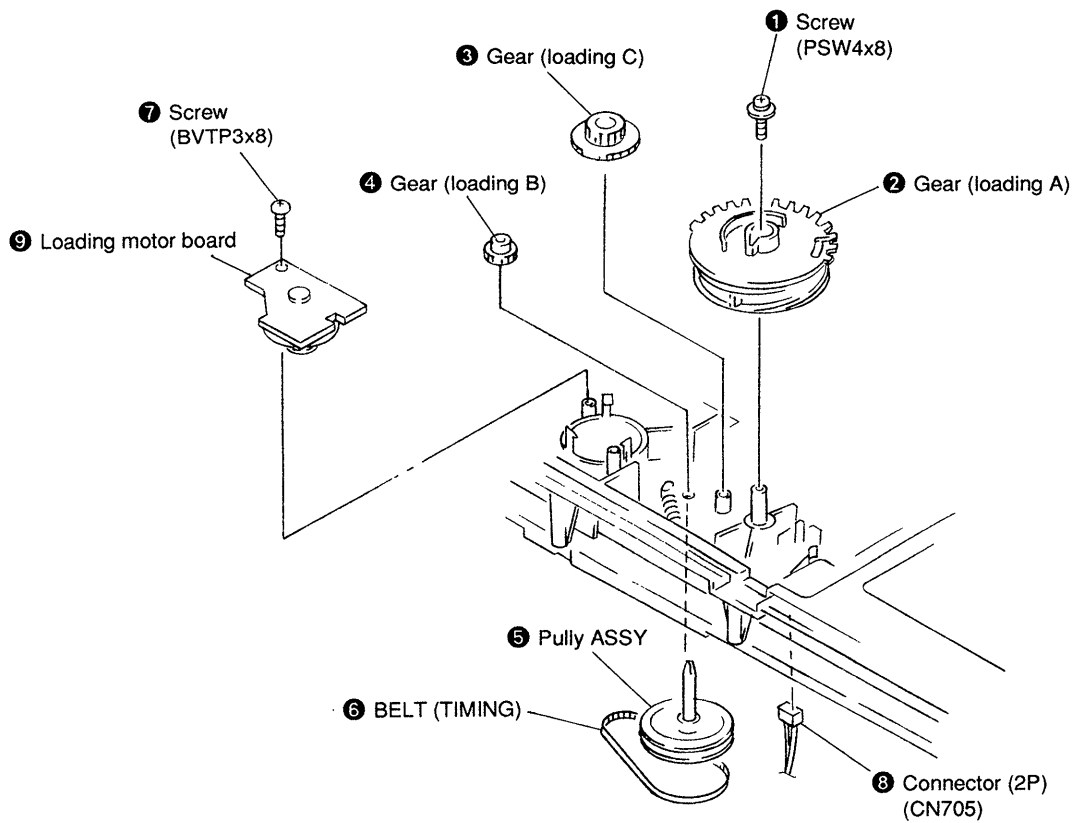
2-2. BACK PANEL AND DISC TABLE



2-3. BRACKET (BD) ASSY



2-4. LOADING MOTOR BOARD



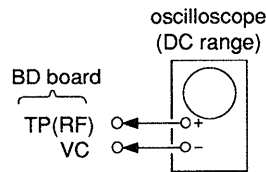
SECTION 3

ELECTRICAL ADJUSTMENTS

Note :

1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10M Ω impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
5. Adjust the focus bias adjustment when optical block is replaced.

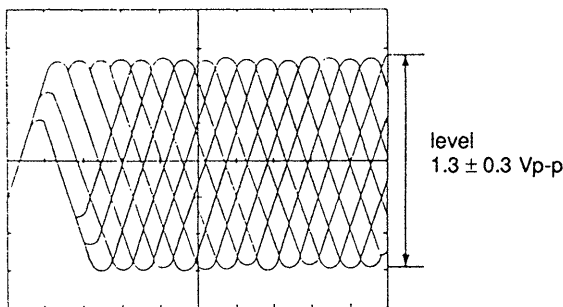
Focus Bias Adjustment



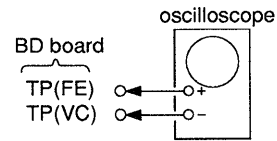
Procedure:

1. Connect oscilloscope to test point TP (RF). (GND terminal : VC)
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Adjust RV101 so that the waveform is clear.
(Clear RF signal waveform means that the shape “ \diamond ” can be clearly distinguished at the center of the waveform.)
5. After adjustment, check the RF signal level.

- RF signal
VOLT/DIV : 200 mV
TIME/DIV : 500 nS



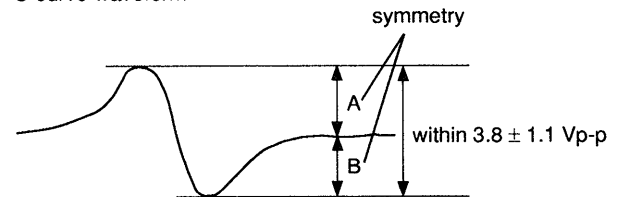
S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FEO).
2. Connect between test point TP (FOK) and GND by lead wire.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3.8 ± 1.1 Vp-p.

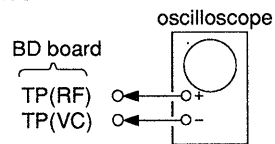
S-curve waveform



6. After check, remove the lead wire connected in step 2.

- Note :**
- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
 - Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check



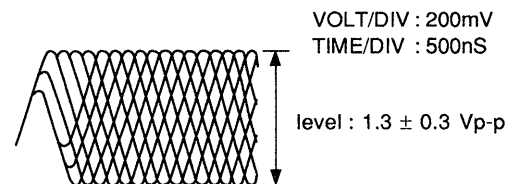
Procedure :

1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

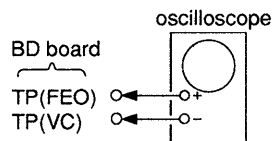
Note :

Clear RF signal waveform means that the shape “ \diamond ” can be clearly distinguished at the center of the waveform.

RF signal waveform



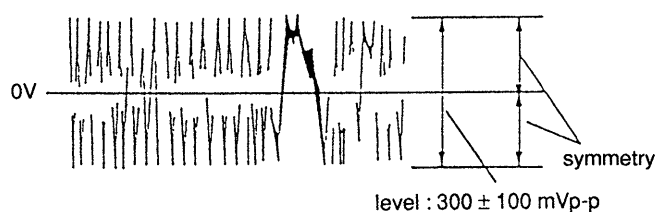
E-F Balance Check



Procedure :

1. Connect test point TP (ADJ) on Main board to GND with a lead wire.
2. Connect oscilloscope to test point TP (TEO).
3. Turned Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0Vdc, and check this level.

Traverse waveform



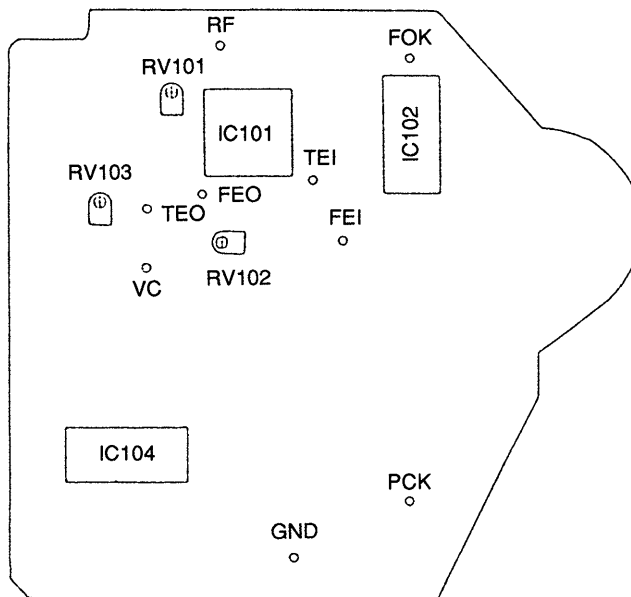
6. Remove the lead wire connected in step 1.

Focus/Tracking Gain Adjustment (RV102, RV103)

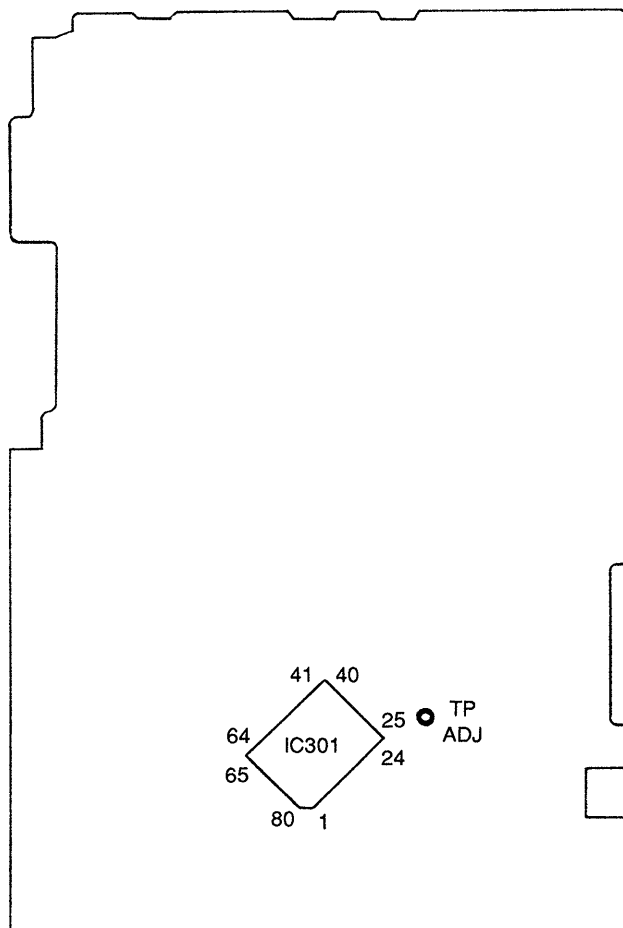
This gain has a margin, so even if it is slightly off.
There is no problem.
Therefore, do not perform this adjustment.
Please note that it should be fixed to mechanical center position
when you moved and do not know original position.

Adjustment Location :

[BD BOARD] (Conductor Side)

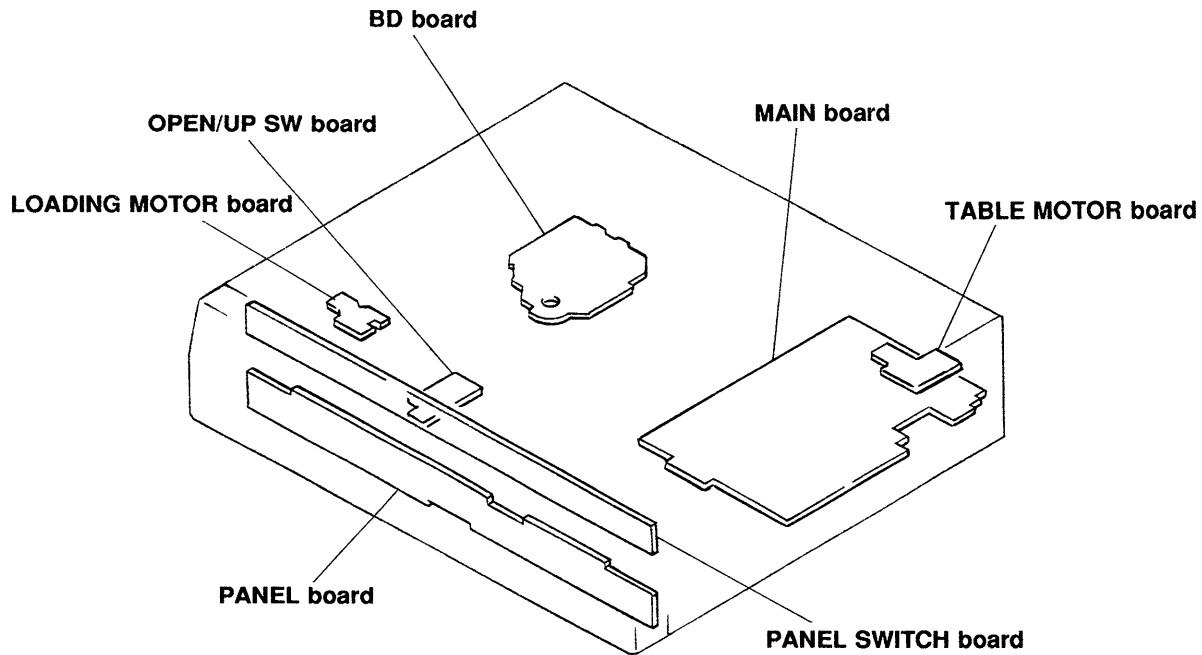


[MAIN BOARD] (Conductor Side)



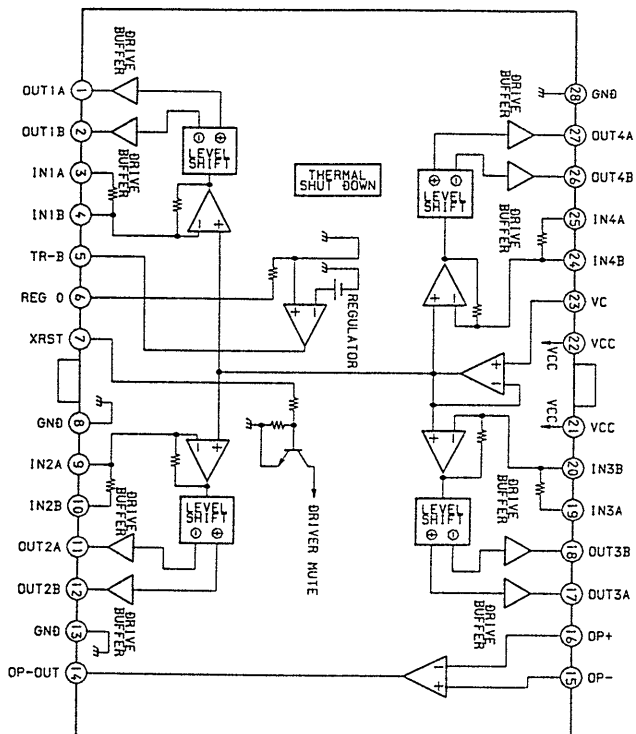
SECTION 4 DIAGRAMS

4-1. CIRCUIT BOARDS LOCATIONS

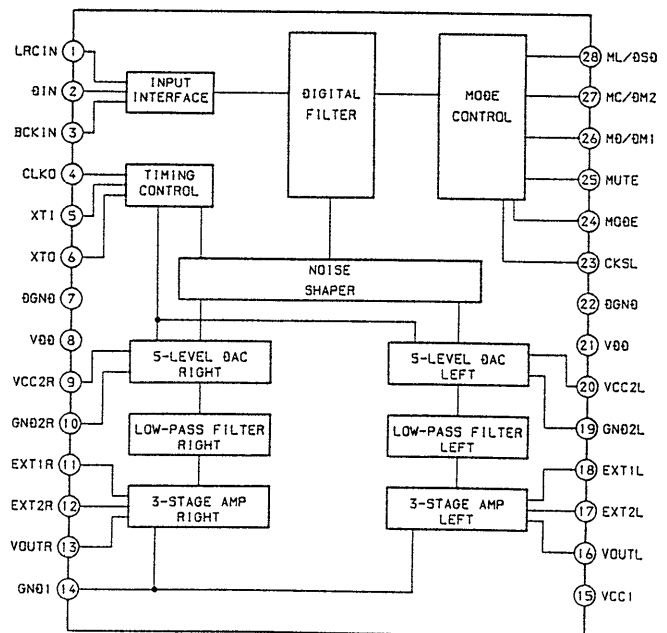


4-2. IC BLOCK DIAGRAMS

IC102 BA6397FP



IC104 PCM1710U



The diagram is a complex schematic of the Philips 7460 video camera IC. It features numerous functional blocks and interconnected pins. Key components include:

- RF Amplifiers:** RF IY AMP1, RF IY AMP2, F E AMP, E IY AMP, and TE AMP.
- Level Shifter:** LEVEL S.
- Mirror Driver:** MIRR.
- Data Register and Decoder:** NL DATA REGISTER, INPUT SHIFT REGISTER, ADDRESS DECODER, and OUTPUT DECODER.
- Compensation Circuits:** FOCUS PHASE COMPENSATION, TRACKING PHASE COMPENSATION, WINDOW COMP, FFC COMP, HFP COMP, LFP COMP, and TFC COMP.
- Control and Timing:** DFCT, FS1, FS2, FS3, FS4, TC1, TC2, and various timing-related pins.
- Power and Grounding:** VCC, VEE, and various ground connections.

The pins are numbered 1 through 48, with some pins having multiple functions or connections. The diagram is a black and white line drawing with various symbols for transistors, capacitors, resistors, and integrated blocks.

The block diagram illustrates the internal architecture of the TMS320C25 DSP. Key components include:

- Input/Output Pins (1-52):** Labeled on the left (e.g., FOK, MON, MOP, MDS, LOCK, TEST, FILO, FIL1, PCO, VSS, AVSS, CLTV, AVB0, RF, BIAS, ASY1, ASY0, ASYE, WBCK) and right (e.g., DATA, XRST, SENS, MUTE, SQCK, SQSD, EXCK, SBSD, SCOR, VSS, WFCK, EMPH, BOUT, C4H, FSTT, XTSL, XTA0, XTA1, MNT0).
- Internal Blocks:** SERVO AUTO SEQUENCER, CPU INTERFACE, SUB CODE PROCESSOR, DIGITAL PLL, ASYMMETRY CORRECTOR, EFM DEMODULATOR, D/A INTERFACE, 16K RAM, ERROR CORRECTOR, DIGITAL OUT, and CLOCK GENERATOR.
- Control Signals:** XLDN, SP0B, SPOC, SP0A, CLKO, Y0B, XLT0, DAT0, CNIN, SEIN, CLOCK, XLAT, and a series of address/data pins (64, 63, 62, 61, 60, 69, 58, 57, 56, 55, 54, 53, 52).
- Internal Connections:** Indicated by numbered lines (1-6) showing the flow of data and control signals between the various functional blocks.

4-3. PRINTED WIRING BOARD — BD SECTION —
• See page 9 for Circuit Boards Location.



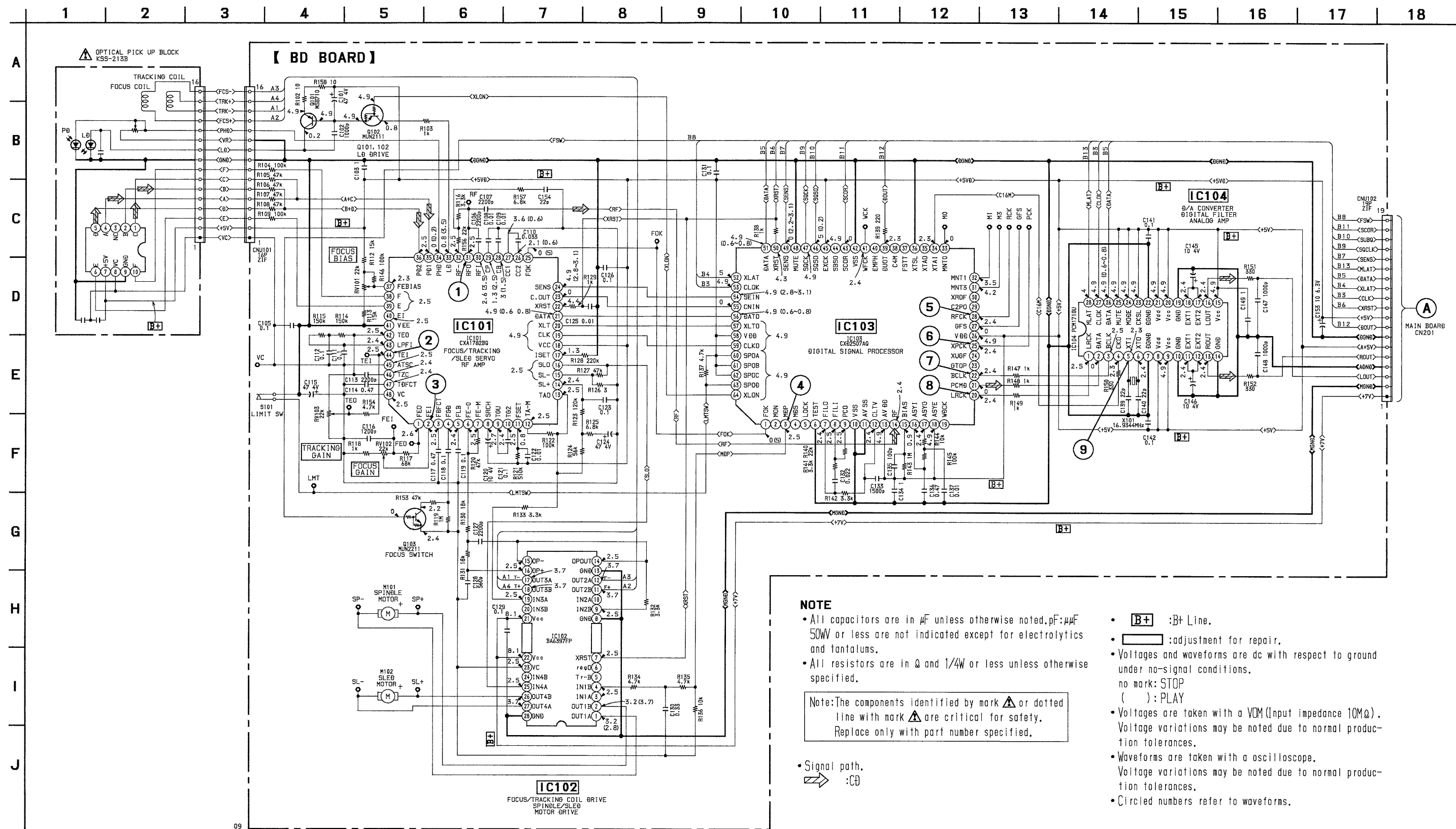
• Semiconductor Location

Ref. No.	Location
IC101	E-9
IC102	C-8
IC103	E-3
IC104	F-11
Q101	D-6
Q102	D-7
Q103	F-6

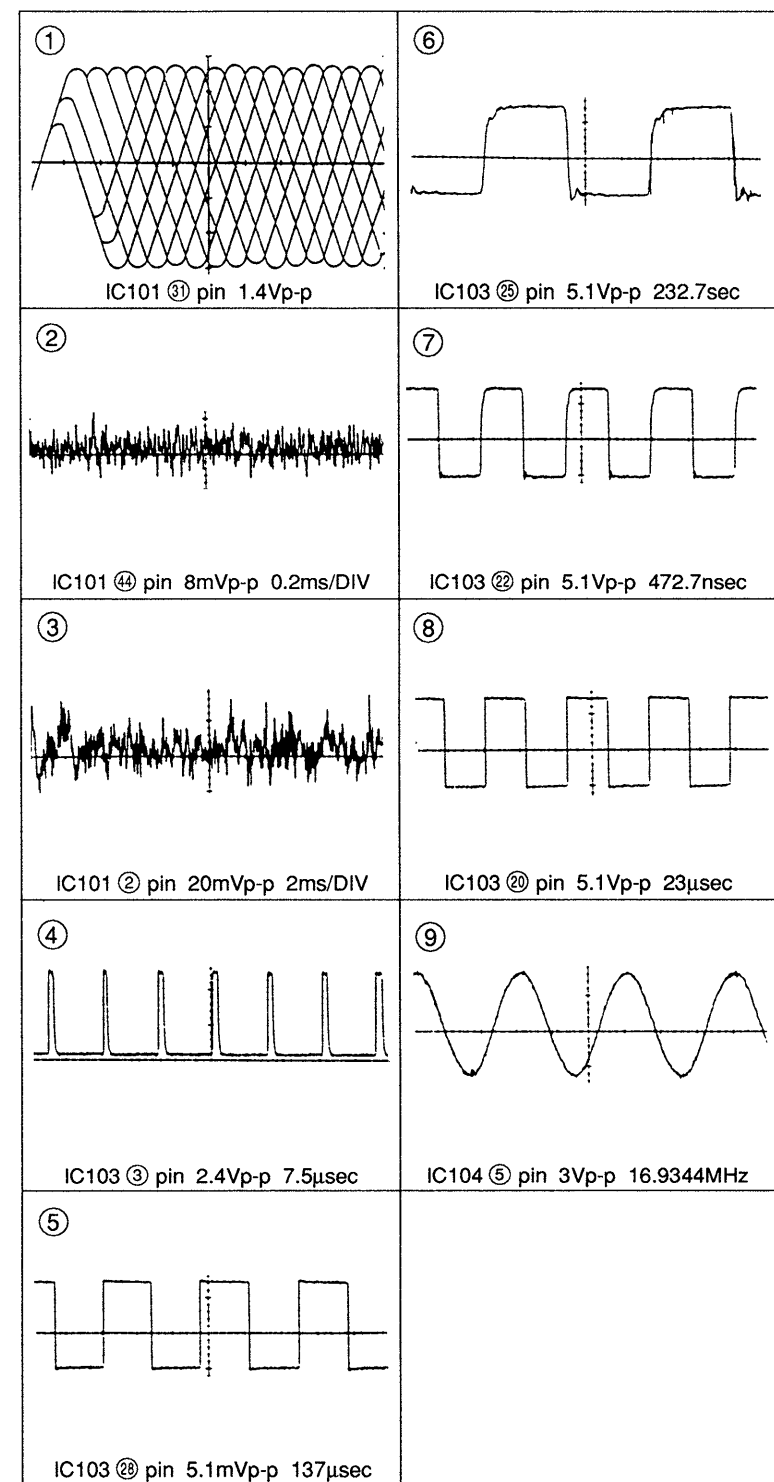
Note:
• ○ : parts extracted from the component side.
• ● : Through hole.
• : Pattern from the side which enable seeing.
(The other layer's patterns are not indicated.)

4-4. SCHEMATIC DIAGRAM — BD SECTION —

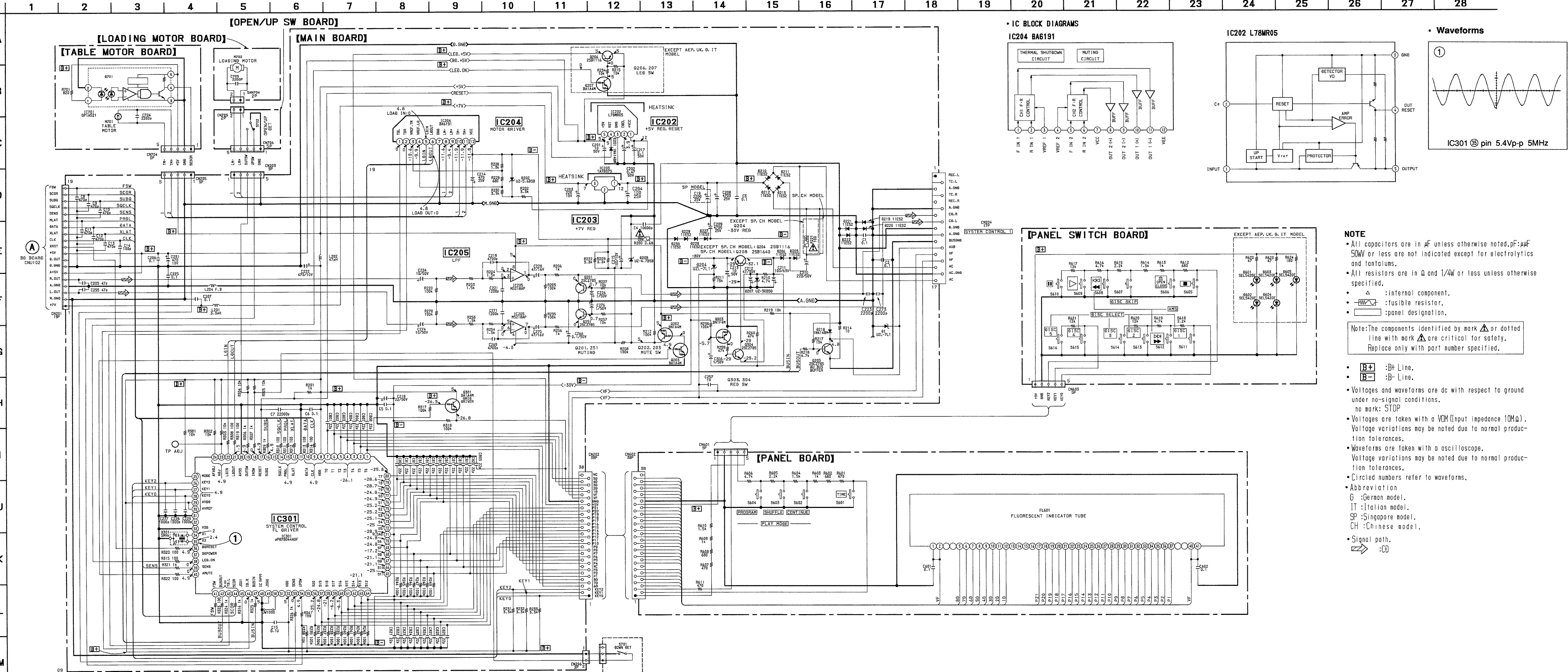
• See page 9 for IC BLOCK DIAGRAMS.



• Waveforms



4-5. SCHEMATIC DIAGRAM — MAIN SECTION —
• See page 22 for IC Pin Function. (IC301)



4-5. IC PIN FUNCTION

• IC301 SYSTEM CONTROL, FL DRIVER (μ PD78044AGF)

Pin No.	Pin Name	I/O	Function
1	T6	O	FL display grid output
2	T5	O	
3	T4	O	
4	T3	O	
5	T2	O	
6	T1	O	
7	T0	O	
8	VDD	—	+5V power supply
9	CLK	O	Serial clock output to DSP (CXD-2507AQ)
10	DATA	O	Serial data output to DSP (CXD-2507AQ)
11	—	—	Fixed at GND
12	XLAT	O	Serial data latch pulse output to DSP (CXD-2507AQ)
13	PRGL	O	Serial data latch pulse output to D/F DAC (PCM-1710U)
14	SQCLK	O	Subcode Q data read clock output to DSP (CXD-2507AQ)
15	—	—	Not used (open)
16	SUBQ	I	Subcode Q data input from DSP (CXD-2507AQ)
17	RESET	I	System reset input ("L"=Active)
18	INSW	I	S701 (loading-in switch) input
19	OUTSW	I	S702 (loading-out switch) input
20	AVss	—	GND
21	LDOUT	O	Output for rotating M702 (loading motor) in the loading-out direction
22	LDIN	O	Output for rotating M702 (loading motor) in the loading-in direction
23	ADJ	I	Test mode input. "L"=Stops GFS check.
24	AFADJ	I	Test mode input. Fixed at "H" ("L":Test mode)
25	MODE	I	Not used (Fixed at "H")
26	KEY2	I	Key AD input
27	KEY1	I	
28	KEY0	I	
29	AVDD	—	+5V power supply
30	AVREF	—	
31	—	—	Fixed at GND
32	—	—	Not used (open)
33	Vss	—	GND
34	X1	I	Clock (5MHz)
35	X2	O	
36	BDRESET	O	BD reset output
37	BDPOWER	O	Not used
38	LED ON	O	LED drive signal
39	SENS	I	SENS input from DSP (CXD-2507AQ)
40	AMUTE	O	Muting ON/OFF output

Pin No.	Pin Name	I/O	Function
41	FSW	O	Focus control signal
42	BSOUT	O	Audio bus output
43	TBL	O	Table motor control
44	SCOR	I	Subcode sync S0+S1 detection input
45	JOG1	I	JOG input (Fixed "L")
46	TBR	O	Table motor control
47	BSIN	I	Audio bus input
48	IC (VPP)	—	Connect to GND
49	JOG0	I	JOG input (Fixed "L")
50	———	—	Fixed "L"
51	———	—	Not used (open)
52	VDD	—	+5V power supply
53	SENS	—	Slit sensor of disc table input
54	UPSW	—	Disc table up det
55	———	—	Not used
56	S20	O	FL display segment output
57	S19	O	
58	S18	O	
59	S17	O	
60	S16	O	
61	S15	O	
62	S14	O	
63	S13	O	
64	S12	O	
65	S11	O	
66	S10	O	
67	S9	O	
68	S8	O	
69	S7	O	
70	S6	O	
71	VLOAD	—	—30V power supply for driving FL display
72	S5	O	FL display segment output
73	S4	O	
74	S3	O	
75	S2	O	
76	S1	O	
77	S0	O	FL display grid output
78	T9	O	
79	T8	O	
80	T7	O	

SECTION 5

EXPLODED VIEWS

NOTE:

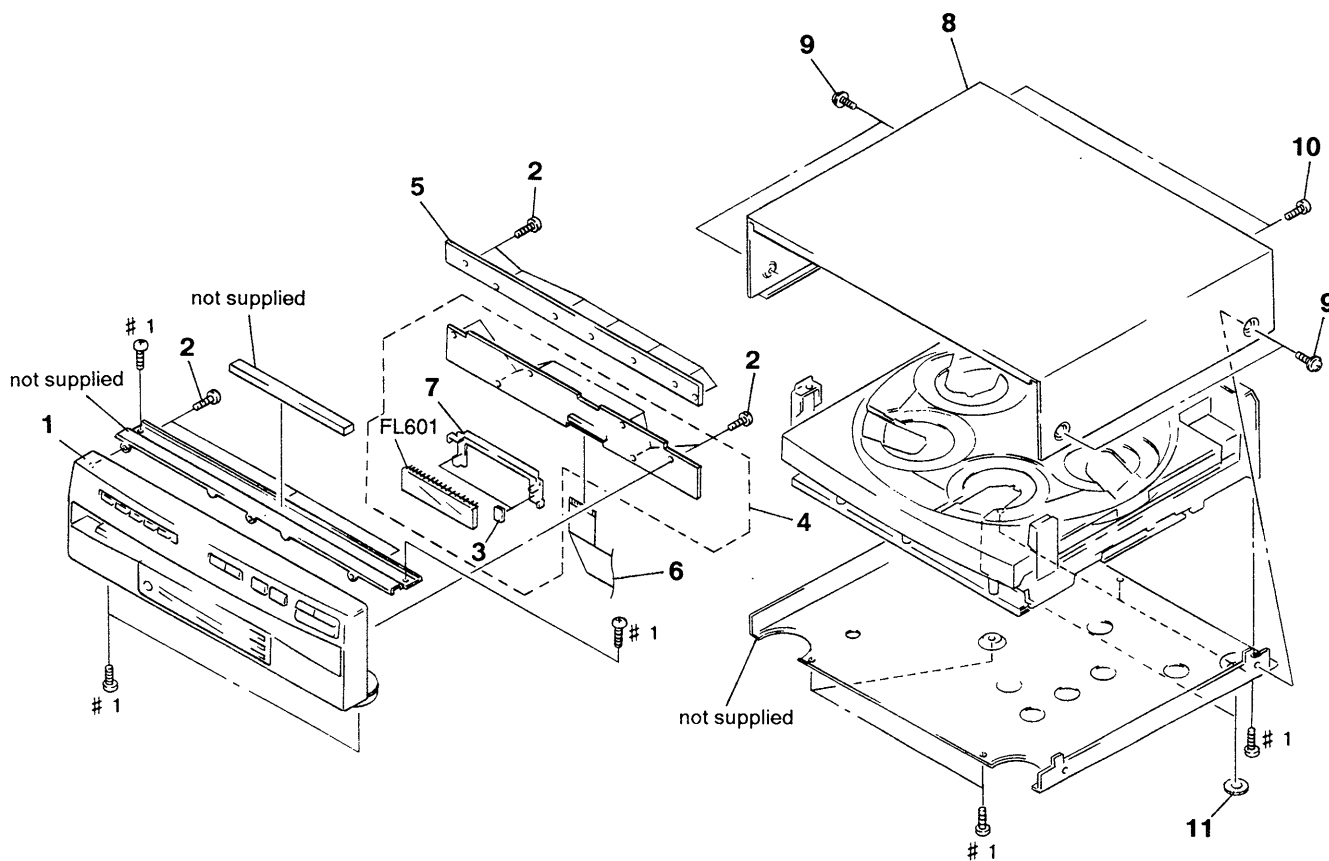
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

• Abbreviation

EA : Saudi Arabia model
 G : German model
 IT : Italian model
 MX : Mexican model
 SP : Singapore model
 MY : Malaysia model
 AUS : Australian model
 CH : Chinese model
 AR : Argentine model

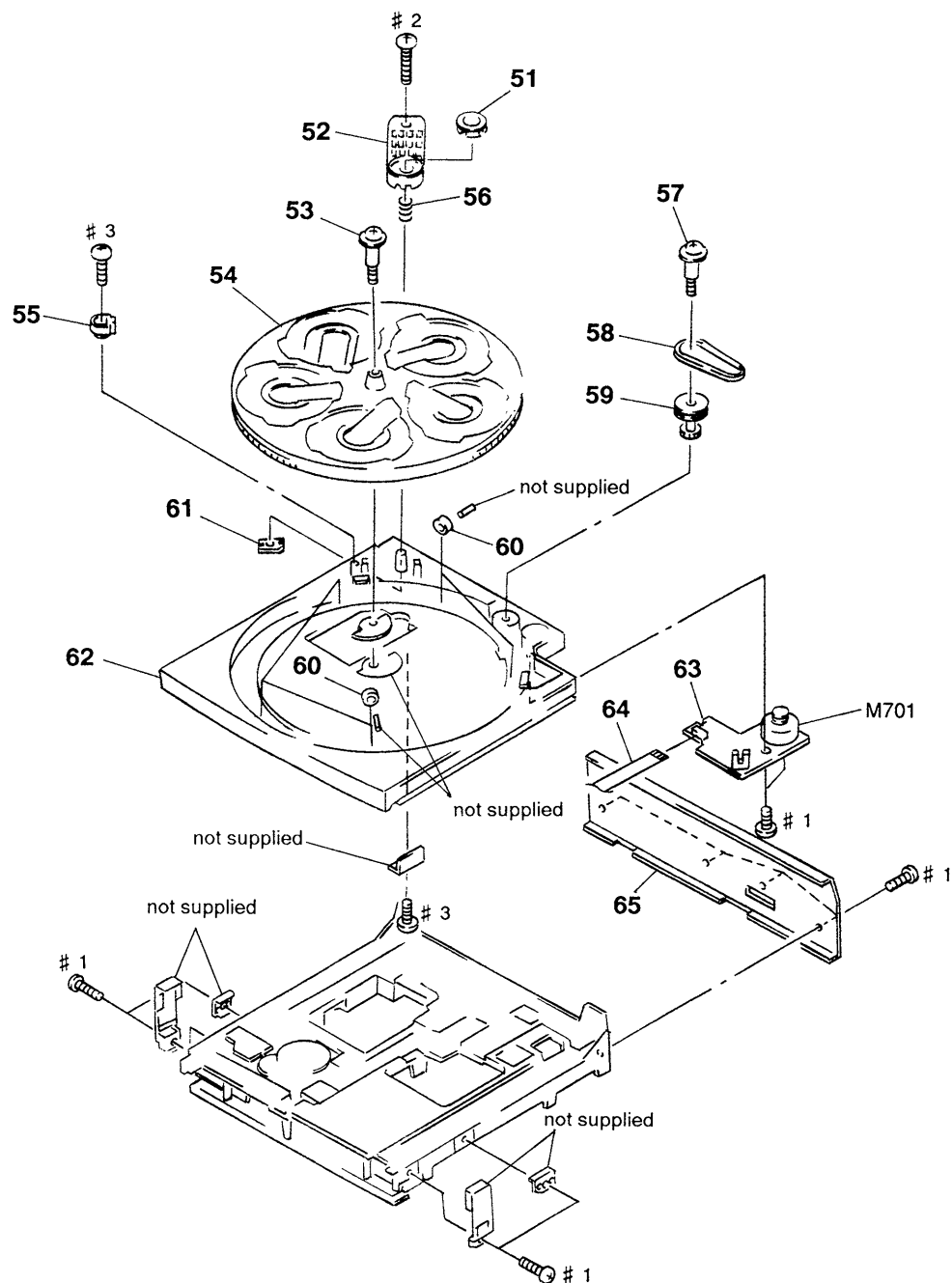
The components identified by mark or dotted line with mark are critical for safety.
 Replace only with part number specified.

5-1. CASE AND FRONT PANEL SECTION



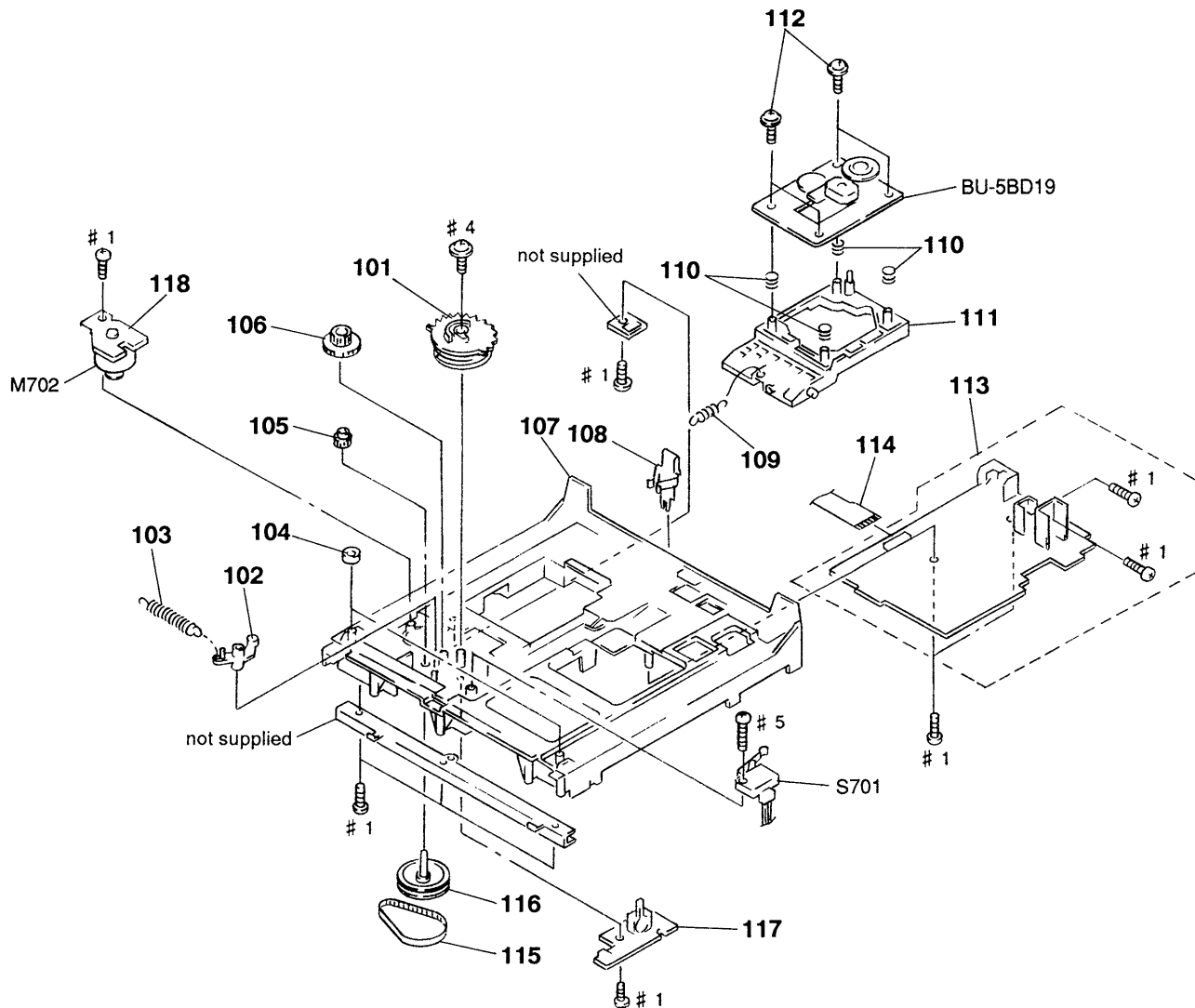
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-4945-742-1	PANEL ASSY, FRONT (AEP, UK, G, IT)		* 7	4-955-792-21	HOLDER (5M), FL TUBE	
1	X-4945-743-1	PANEL ASSY, FRONT (EXCEPT AEP, UK, G, IT)		8	4-943-992-21	CASE	
2	4-951-620-01	SCREW (2. 6X8), +BVTP		9	3-704-366-01	SCREW (CASE) (M3X8)	
* 3	4-921-941-01	CUSHION (FL)		10	3-703-685-21	SCREW (+BV 3X8)	
* 4	1-655-482-11	PANEL BOARD					
* 5	1-655-665-11	PANEL SWITCH BOARD		11	4-924-410-01	FELT	
6	1-769-507-31	WIRE (FLAT TYPE) (37 CORE)		FL601	1-519-721-31	INDICATOR TUBE, FLUORESCENT	

5-2. DISC TABLE SECTION



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
* 51	1-452-538-11	MAGNET		* 61	4-926-388-01	BRACKET (ADJUSTMENT)	
* 52	4-930-506-02	BRACKET (PRESS PULLEY)		62	4-955-787-81	TABLE, DISC	
53	4-926-384-01	SCREW, STEP		63	1-638-729-11	TABLE MOTOR BOARD	
* 54	4-926-383-01	TABLE (B), DISK		64	1-590-849-11	WIRE, FLAT TYPE (5 CORE)	
* 55	4-949-226-01	PLATE, LOCK		* 65	4-969-794-01	PANEL, BACK (AEP, UK, G, IT)	
56	4-926-395-01	SPRING, COMPRESSION		* 65	4-969-794-11	PANEL, BACK (E, SP, AR, MY, CH)	
57	4-923-597-01	SCREW, STEP		* 65	4-969-794-21	PANEL, BACK (EA, MX, AUS, PX)	
58	4-926-399-01	BELT		M701	A-4353-976-A	MOTOR ASSY, ROTARY (TABLE)	
59	4-934-380-01	PULLEY (R)					
60	X-4924-457-1	ROLLER ASSY					

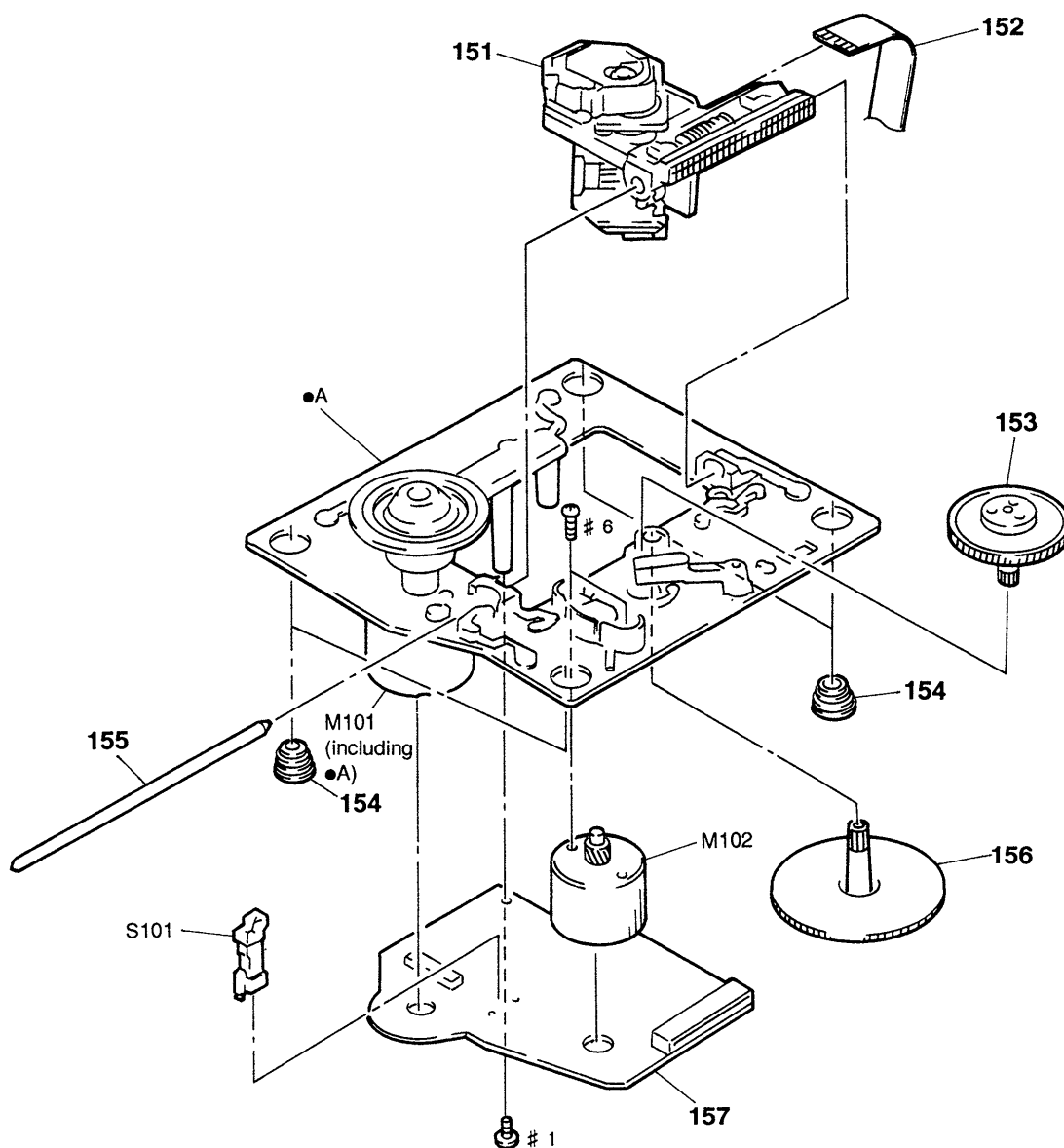
5-3. CHASSIS SECTION





Ref. No.	Part No.	Description
101	4-934-391-01	GEAR (LOADING A)
102	4-917-519-01	LEVER, SET
103	4-924-412-01	SPRING (B), TENSION
* 104	4-951-619-01	CUSHION (A)
105	4-934-375-01	GEAR (LOADING B)
106	4-934-381-01	GEAR (LOADING C)
* 107	4-943-997-31	CHASSIS
* 108	4-943-996-06	SPRING, LEAF
109	4-937-911-01	SPRING, TENSION
110	4-958-593-01	SPRING (BU), COMPRESSION
* 111	4-934-373-01	BRACKET (BU)

Ref. No.	Part No.	Description	Remark
112	4-933-134-01	SCREW (+PTPWH M2. 6X6)	
* 113	A-4673-489-A	MAIN BOARD, COMPLETE (AEP, UK, G, IT)	
* 113	A-4673-491-A	MAIN BOARD, COMPLETE (E, EA, MX, MY, AUS, PX, AR)	
* 113	A-4673-662-A	MAIN BOARD, COMPLETE (SP, CH)	
114	1-654-751-11	FLEXIBLE BOARD	
115	4-944-490-01	BELT (TIMING)	
116	X-4941-529-1	PULLEY ASSY	
117	1-638-731-11	OPEN/UP SW BOARD	
* 118	1-639-288-11	LOADING MOTOR BOARD	
M702	A-4353-974-A	MOTOR ASSY, LOADING	

5-4. BASE UNIT SECTION (BU-5BD19)



The components identified by mark  or dotted line with mark  are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
△151	8-848-387-01	OPTICAL PICK UP BLOCK KSS-213BA/S-N		156	4-917-564-01	GEAR (P), FLATNESS	
152	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)		* 157	A-4673-402-A	BD BOARD, COMPLETE	
153	4-917-567-01	GEAR (M)		M101	X-4917-523-4	BASE (OUTSERT) ASSY (SPINDLE)	
154	4-951-940-01	INSULATOR (BU)		M102	X-4917-504-1	MOTOR ASSY (SLED)	
155	4-917-565-01	SHAFT, SLED		S101	1-572-085-11	SWITCH, LEAF (LIMIT)	

SECTION 6

ELECTRICAL PARTS LIST

NOTE:

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA..., uPB...: μ PB...,
uPC...: μ PC..., uPD...: μ PD...

- CAPACITORS
uF : μ F
- COILS
uH : μ H
- Abbreviation
EA : Saudi Arabia model
G : German model
IT : Italian model
MX : Mexican model
SP : Singapore model
MY : Malaysia model
AUS : Australian model
CH : Chinese model
AR : Argentine model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4673-402-A	BD BOARD, COMPLETE *****		C142	1-163-038-91	CERAMIC CHIP 0.1uF	25V
		< CAPACITOR >		C145	1-135-201-11	TANTALUM CHIP 10uF	20% 4V
C101	1-126-607-11	ELECT CHIP 47uF	20% 4V	C146	1-135-201-11	TANTALUM CHIP 10uF	20% 4V
C102	1-163-275-11	CERAMIC CHIP 0.001uF	5% 50V	C147	1-163-275-11	CERAMIC CHIP 0.001uF	5% 50V
C103	1-164-346-11	CERAMIC CHIP 1uF	16V	C148	1-163-275-11	CERAMIC CHIP 0.001uF	5% 50V
C105	1-163-038-91	CERAMIC CHIP 0.1uF	25V	C149	1-164-346-11	CERAMIC CHIP 1uF	16V
C106	1-164-695-11	CERAMIC CHIP 0.0022uF	5% 50V	C153	1-135-259-11	TANTAL. CHIP 10uF	20% 6.3V
C107	1-164-695-11	CERAMIC CHIP 0.0022uF	5% 50V	C154	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C108	1-164-232-11	CERAMIC CHIP 0.01uF	50V			< CONNECTOR >	
C109	1-164-232-11	CERAMIC CHIP 0.01uF	50V	CNU101	1-770-014-11	CONNECTOR, FFC/FPC 16P	
C110	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V	CNU102	1-770-013-11	CONNECTOR, FFC/FPC 19P	
C111	1-163-038-91	CERAMIC CHIP 0.1uF	25V			< IC >	
C112	1-163-038-91	CERAMIC CHIP 0.1uF	25V	IC101	8-752-069-56	IC CXA1782BQ	
C113	1-164-695-11	CERAMIC CHIP 0.0022uF	5% 50V	IC102	8-759-291-06	IC BA6397FP	
C114	1-164-005-11	CERAMIC CHIP 0.47uF	25V	IC103	8-752-372-94	IC CXD2507AQ	
C115	1-126-607-11	ELECT CHIP 47uF	20% 4V	IC104	8-759-185-29	IC PCM1710U-B	
C116	1-163-143-00	CERAMIC CHIP 0.0012uF	5% 50V			< TRANSISTOR >	
C117	1-164-005-11	CERAMIC CHIP 0.47uF	25V	Q101	8-729-010-08	TRANSISTOR MSB710-R	
C118	1-163-038-91	CERAMIC CHIP 0.1uF	25V	Q102	8-729-424-08	TRANSISTOR UN2111	
C119	1-163-038-91	CERAMIC CHIP 0.1uF	25V	Q103	8-729-421-22	TRANSISTOR UN2211	
C120	1-135-201-11	TANTALUM CHIP 10uF	20% 4V			< RESISTOR >	
C121	1-163-038-91	CERAMIC CHIP 0.1uF	25V	R102	1-216-001-00	METAL CHIP 10	5% 1/10W
C122	1-164-232-11	CERAMIC CHIP 0.01uF	50V	R103	1-216-049-91	METAL GLAZE 1K	5% 1/10W
C123	1-163-038-91	CERAMIC CHIP 0.1uF	25V	R104	1-216-097-91	METAL GLAZE 100K	5% 1/10W
C124	1-126-607-11	ELECT CHIP 47uF	20% 4V	R105	1-216-089-00	METAL CHIP 47K	5% 1/10W
C125	1-164-232-11	CERAMIC CHIP 0.01uF	50V	R106	1-216-089-00	METAL CHIP 47K	5% 1/10W
C126	1-163-038-91	CERAMIC CHIP 0.1uF	25V	R107	1-216-089-00	METAL CHIP 47K	5% 1/10W
C127	1-164-695-11	CERAMIC CHIP 0.0022uF	5% 50V	R108	1-216-089-00	METAL CHIP 47K	5% 1/10W
C128	1-163-135-00	CERAMIC CHIP 560PF	5% 50V	R109	1-216-097-91	METAL GLAZE 100K	5% 1/10W
C129	1-163-038-91	CERAMIC CHIP 0.1uF	25V	R112	1-216-077-00	METAL CHIP 15K	5% 1/10W
C130	1-164-336-11	CERAMIC CHIP 0.33uF	25V	R113	1-216-077-00	METAL CHIP 15K	5% 1/10W
C131	1-163-038-91	CERAMIC CHIP 0.1uF	25V	R114	1-216-101-00	METAL CHIP 150K	5% 1/10W
C132	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V	R115	1-216-101-00	METAL CHIP 150K	5% 1/10W
C133	1-163-145-00	CERAMIC CHIP 0.0015uF	5% 50V	R116	1-216-061-00	METAL CHIP 3.3K	5% 1/10W
C134	1-164-346-11	CERAMIC CHIP 1uF	16V	R117	1-216-093-00	METAL CHIP 68K	5% 1/10W
C135	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	R118	1-216-049-91	METAL GLAZE 1K	5% 1/10W
C136	1-164-005-11	CERAMIC CHIP 0.47uF	25V	R119	1-216-121-00	METAL CHIP 1M	5% 1/10W
C137	1-164-232-11	CERAMIC CHIP 0.01uF	50V	R120	1-216-089-00	METAL CHIP 47K	5% 1/10W
C139	1-163-235-11	CERAMIC CHIP 22PF	5% 50V				
C140	1-163-235-11	CERAMIC CHIP 22PF	5% 50V				
C141	1-163-038-91	CERAMIC CHIP 0.1uF	25V				

BD	TABLE MOTOR	LOADING MOTOR	OPEN/UP SW	MAIN
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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R121	1-216-114-00	METAL GLAZE	510K 5% 1/10W		1-638-729-11	TABLE MOTOR BOARD	
R122	1-216-097-91	METAL GLAZE	100K 5% 1/10W			*****	
R123	1-216-099-00	METAL CHIP	120K 5% 1/10W				
				*	1-639-288-11	LOADING MOTOR BOARD	
R124	1-216-091-00	METAL CHIP	56K 5% 1/10W			*****	
R125	1-216-069-00	METAL CHIP	6. 8K 5% 1/10W				
R126	1-216-063-00	METAL CHIP	3. 9K 5% 1/10W		1-638-731-11	OPEN/UP SW BOARD	
R127	1-216-089-00	METAL CHIP	47K 5% 1/10W			*****	
R128	1-216-105-91	METAL GLAZE	220K 5% 1/10W				
						< CAPACITOR >	
R129	1-216-049-91	METAL GLAZE	1K 5% 1/10W		C704	1-162-302-11 CERAMIC	0. 0022uF 30% 16V
R130	1-216-079-00	METAL CHIP	18K 5% 1/10W		C705	1-162-302-11 CERAMIC	0. 0022uF 30% 16V
R131	1-216-079-00	METAL CHIP	18K 5% 1/10W				
R132	1-216-061-00	METAL CHIP	3. 3K 5% 1/10W				
R133	1-216-061-00	METAL CHIP	3. 3K 5% 1/10W				< CONNECTOR >
R134	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W		* CN705	1-566-214-11 PIN, CONNECTOR (PC BOARD) 2P	
R135	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W		* CN707	1-573-044-11 SOCKET, CONNECTOR 5P	
R136	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R137	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W				< DIODE >
R138	1-216-049-91	METAL GLAZE	1K 5% 1/10W				
					D701	8-719-970-19 DIODE	GP-1A521
R139	1-216-033-00	METAL CHIP	220 5% 1/10W				< RESISTOR >
R140	1-216-081-00	METAL CHIP	22K 5% 1/10W				
R141	1-216-061-00	METAL CHIP	3. 3K 5% 1/10W				
R142	1-216-061-00	METAL CHIP	3. 3K 5% 1/10W		R701	1-249-416-11 CARBON	820 5% 1/4W F
R143	1-216-121-00	METAL CHIP	1M 5% 1/10W				< SWITCH >
R144	1-216-073-00	METAL CHIP	10K 5% 1/10W		S702	1-571-300-21 SWITCH, ROTARY (OPEN/UP DET)	
R145	1-216-097-91	METAL GLAZE	100K 5% 1/10W				
R146	1-216-097-91	METAL GLAZE	100K 5% 1/10W				
R147	1-216-049-91	METAL GLAZE	1K 5% 1/10W				*****
R148	1-216-049-91	METAL GLAZE	1K 5% 1/10W				
				*	A-4673-489-A	MAIN BOARD, COMPLETE (AEP, UK, G, IT)	
R149	1-216-049-91	METAL GLAZE	1K 5% 1/10W				*****
R150	1-216-037-00	METAL CHIP	330 5% 1/10W				
R151	1-216-037-00	METAL CHIP	330 5% 1/10W		*	A-4673-491-A	MAIN BOARD, COMPLETE
R152	1-216-037-00	METAL CHIP	330 5% 1/10W				(E, EA, MX, PX, AUS, AR, MY)
R153	1-216-089-00	METAL CHIP	47K 5% 1/10W				*****
				*	A-4673-662-A	MAIN BOARD, COMPLETE (SP, CH)	
R154	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W				*****
R156	1-216-081-00	METAL CHIP	22K 5% 1/10W				
R157	1-216-069-00	METAL CHIP	6. 8K 5% 1/10W				
R158	1-216-001-00	METAL CHIP	10 5% 1/10W			7-685-646-79 SCREW +BVTP	3X8 TYPE2 N-S
							< CAPACITOR >
		< VARIABLE RESISTOR >					
RV101	1-241-396-11	RES, ADJ, METAL GLAZE 22K		C1	1-164-159-11	CERAMIC	0. 1uF 50V
RV102	1-241-396-11	RES, ADJ, METAL GLAZE 22K		C2	1-164-159-11	CERAMIC	0. 1uF 50V
RV103	1-241-396-11	RES, ADJ, METAL GLAZE 22K		C3	1-164-159-11	CERAMIC	0. 1uF 50V
				C4	1-162-306-11	CERAMIC	0. 01uF 30% 16V
		< SWITCH >		C5	1-164-159-11	CERAMIC	0. 1uF 50V
S101	1-572-085-11	SWITCH, LEAF (LIMIT)		C6	1-164-159-11	CERAMIC	0. 1uF 50V
		< VIBRATOR >		C7	1-161-494-00	CERAMIC	0. 022uF 25V
				C8	1-162-290-31	CERAMIC	470PF 10% 50V
X101	1-579-280-11	VIBRATOR, CRYSTAL (16. 9344MHz)		C9	1-162-290-31	CERAMIC	470PF 10% 50V
				C10	1-162-290-31	CERAMIC	470PF 10% 50V
*****				C11	1-162-290-31	CERAMIC	470PF 10% 50V

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C12	1-162-290-31	CERAMIC	470PF	10%	50V	C807	1-162-207-31	CERAMIC	22PF	5%	50V
C13	1-162-290-31	CERAMIC	470PF	10%	50V	C808	1-162-207-31	CERAMIC	22PF	5%	50V
C14	1-162-282-31	CERAMIC	100PF	10%	50V	C809	1-162-207-31	CERAMIC	22PF	5%	50V
C15	1-164-159-11	CERAMIC	0. 1uF		50V	C810	1-162-207-31	CERAMIC	22PF	5%	50V
C19	1-126-943-11	ELECT	2200uF	20%	25V (SP)	C811	1-162-207-31	CERAMIC	22PF	5%	50V
C201	1-124-907-11	ELECT	10uF	20%	50V	C812	1-162-207-31	CERAMIC	22PF	5%	50V
C202	1-124-465-00	ELECT	0. 47uF	20%	50V	C813	1-162-207-31	CERAMIC	22PF	5%	50V
C203	1-126-923-11	ELECT	220uF	20%	10V	C814	1-162-207-31	CERAMIC	22PF	5%	50V
C204	1-124-478-11	ELECT	100uF	20%	25V	C815	1-162-207-31	CERAMIC	22PF	5%	50V
C205	1-162-215-31	CERAMIC	47PF	5%	50V	C816	1-162-207-31	CERAMIC	22PF	5%	50V
C206	1-164-159-11	CERAMIC	0. 1uF		50V	C817	1-162-207-31	CERAMIC	22PF	5%	50V
C207	1-164-159-11	CERAMIC	0. 1uF		50V	C818	1-162-207-31	CERAMIC	22PF	5%	50V
C208	1-128-548-11	ELECT	4700uF	20%	25V	C819	1-162-207-31	CERAMIC	22PF	5%	50V
C209	1-128-548-11	ELECT	4700uF	20%	25V	C820	1-162-207-31	CERAMIC	22PF	5%	50V
C210	1-126-969-11	ELECT	220uF	20%	50V	C821	1-162-207-31	CERAMIC	22PF	5%	50V
C211	1-128-576-11	ELECT	100uF	20%	63V	C822	1-162-207-31	CERAMIC	22PF	5%	50V
C212	1-126-947-11	ELECT	47uF	20%	35V	C823	1-162-207-31	CERAMIC	22PF	5%	50V
C213	1-124-907-11	ELECT	10uF	20%	50V	C824	1-162-207-31	CERAMIC	22PF	5%	50V
C214	1-126-941-11	ELECT	470uF	20%	25V	C825	1-162-207-31	CERAMIC	22PF	5%	50V
C215	1-124-443-00	ELECT	100uF	20%	10V	C826	1-162-207-31	CERAMIC	22PF	5%	50V
C217	1-124-463-00	ELECT	0. 1uF	20%	50V	C827	1-162-207-31	CERAMIC	22PF	5%	50V
C218	1-124-916-11	ELECT	22uF	20%	63V	C828	1-162-207-31	CERAMIC	22PF	5%	50V
C219	1-130-479-00	MYLAR	0. 0047uF	5%	50V	C829	1-162-207-31	CERAMIC	22PF	5%	50V
C220	1-104-664-11	ELECT	47uF	20%	16V						
C221	1-130-472-00	MYLAR	0. 0012uF	5%	50V	< CONNECTOR >					
C222	1-126-925-11	ELECT	470uF	20%	10V	* CN201	1-568-862-11	SOCKET, CONNECTOR 19P			
C223	1-162-302-11	CERAMIC	0. 0022uF	30%	16V	* CN202	1-691-902-21	CONNECTOR, FFC/FPC 37P			
C224	1-124-907-11	ELECT	10uF	20%	50V	* CN203	1-568-943-11	PIN, CONNECTOR 5P			
C225	1-164-159-11	CERAMIC	0. 1uF		50V	CN204	1-764-017-11	HOUSING, CONNECTOR(PC BOARD) 17P			
C226	1-124-903-11	ELECT	1uF	20%	50V	* CN205	1-568-824-11	SOCKET, CONNECTOR 5P			
C227	1-162-294-31	CERAMIC	0. 001uF	10%	50V						
C228	1-162-294-31	CERAMIC	0. 001uF	10%	50V	< DIODE >					
C229	1-162-294-31	CERAMIC	0. 001uF	10%	50V	D1	8-719-000-75	DIODE UZL-7L1			
C231	1-126-925-11	ELECT	470uF	20%	10V	D201	8-719-987-63	DIODE 1N4148M			
C255	1-162-215-31	CERAMIC	47PF	5%	50V	D202	8-719-010-42	DIODE UZ-5. 6BSB			
C257	1-136-177-00	FILM	1uF	5%	50V	D204	8-719-000-75	DIODE UZL-7L1			
C266	1-124-463-00	ELECT	0. 1uF	20%	50V	D205	8-719-024-99	DIODE 11ES2-NTA2B			
C269	1-130-479-00	MYLAR	0. 0047uF	5%	50V	D206	8-719-024-99	DIODE 11ES2-NTA2B			
C270	1-104-664-11	ELECT	47uF	20%	16V	D207	8-719-013-67	DIODE UZ-30BSD			
C271	1-130-472-00	MYLAR	0. 0012uF	5%	50V	D208	8-719-010-33	DIODE UZ-4. 7BSB			
C273	1-162-302-11	CERAMIC	0. 0022uF	30%	16V	D210	8-719-024-99	DIODE 11ES2-NTA2B			
C274	1-124-907-11	ELECT	10uF	20%	50V	D211	8-719-024-99	DIODE 11ES2-NTA2B			
C276	1-124-903-11	ELECT	1uF	20%	50V	D212	8-719-024-99	DIODE 11ES2-NTA2B			
C306	1-124-903-11	ELECT	1uF	20%	50V	D213	8-719-024-99	DIODE 11ES2-NTA2B			
C801	1-162-207-31	CERAMIC	22PF	5%	50V	D218	8-719-987-63	DIODE 1N4148M			
C802	1-162-207-31	CERAMIC	22PF	5%	50V	D219	8-719-024-99	DIODE 11ES2-NTA2B			
C803	1-162-207-31	CERAMIC	22PF	5%	50V	D220	8-719-024-99	DIODE 11ES2-NTA2B			
C804	1-162-207-31	CERAMIC	22PF	5%	50V	D221	8-719-024-99	DIODE 11ES2-NTA2B			
C805	1-162-207-31	CERAMIC	22PF	5%	50V	D222	8-719-024-99	DIODE 11ES2-NTA2B			
C806	1-162-207-31	CERAMIC	22PF	5%	50V	D227	8-719-024-99	DIODE 11ES2-NTA2B			
						D228	8-719-024-99	DIODE 11ES2-NTA2B			

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D229	8-719-024-99	DIODE 11ES2-NTA2B		R219	1-249-429-11	CARBON 10K 5% 1/4W	
D230	8-719-024-99	DIODE 11ES2-NTA2B		R220	1-249-441-11	CARBON 100K 5% 1/4W	
< IC >				△R221	1-212-881-11	FUSIBLE 100 5% 1/4W F	(EXCEPT SP, CH)
IC202	8-759-820-84	IC L78MR05		R222	1-249-423-11	CARBON 3.3K 5% 1/4W F	
IC203	8-759-071-48	IC TA7807S		R228	1-247-834-11	CARBON 1.3K 5% 1/4W	
IC204	8-759-172-31	IC BA6191		R229	1-249-415-11	CARBON 680 5% 1/4W F	
IC205	8-759-634-51	IC M5218AP		R230	1-249-424-11	CARBON 3.9K 5% 1/4W F	
IC301	8-759-332-67	IC uPD78044AGF-101-3B9		R231	1-249-423-11	CARBON 3.3K 5% 1/4W F	
< COIL >				R232	1-249-423-11	CARBON 3.3K 5% 1/4W F	
L201	1-410-322-11	INDUCTOR 3.3uH		R233	1-249-423-11	CARBON 3.3K 5% 1/4W F	
L202	1-410-517-11	INDUCTOR 47uH		R234	1-249-429-11	CARBON 10K 5% 1/4W	(EXCEPT AEP, UK, G, IT)
L204	1-412-473-21	INDUCTOR 0uH		R235	1-249-441-11	CARBON 100K 5% 1/4W	
< TRANSISTOR >				R236	1-249-441-11	CARBON 100K 5% 1/4W	
Q201	8-729-119-78	TRANSISTOR 2SC403SP-51		R237	1-249-441-11	CARBON 100K 5% 1/4W	
Q202	8-729-422-57	TRANSISTOR UN4111		R238	1-249-441-11	CARBON 100K 5% 1/4W	
Q203	8-729-900-80	TRANSISTOR DTC114ES		R239	1-249-441-11	CARBON 100K 5% 1/4W	
Q204	8-729-030-19	TRANSISTOR 2SB1640 (SP, CH)		R240	1-249-441-11	CARBON 100K 5% 1/4W	
Q205	8-729-119-78	TRANSISTOR 2SC403SP-51 (EXCEPT SP, CH)		R241	1-249-441-11	CARBON 100K 5% 1/4W	
Q206	8-729-140-04	TRANSISTOR 2SB1116A-L		R242	1-249-441-11	CARBON 100K 5% 1/4W	
		(EXCEPT AEP, UK, G, IT)		R243	1-249-441-11	CARBON 100K 5% 1/4W	
Q207	8-729-900-80	TRANSISTOR DTC114ES		R244	1-249-441-11	CARBON 100K 5% 1/4W	
		(EXCEPT AEP, UK, G, IT)		R245	1-249-441-11	CARBON 100K 5% 1/4W	
Q208	8-729-140-04	TRANSISTOR 2SB1116A-L (EXCEPT SP, CH)		R246	1-249-441-11	CARBON 100K 5% 1/4W	
Q251	8-729-119-78	TRANSISTOR 2SC403SP-51		R247	1-249-441-11	CARBON 100K 5% 1/4W	
Q301	8-729-900-80	TRANSISTOR DTC114ES		R248	1-249-441-11	CARBON 100K 5% 1/4W	
Q303	8-729-900-63	TRANSISTOR DTA124ES		R249	1-249-441-11	CARBON 100K 5% 1/4W	
Q304	8-729-119-78	TRANSISTOR 2SC403SP-51		R250	1-249-417-11	CARBON 1K 5% 1/4W F	
< RESISTOR >				R253	1-249-419-11	CARBON 1.5K 5% 1/4W F	
△R200	1-219-139-11	FUSIBLE 0.68 10% 1/4W		R254	1-249-419-11	CARBON 1.5K 5% 1/4W F	
R201	1-249-417-11	CARBON 1K 5% 1/4W F		R255	1-249-441-11	CARBON 100K 5% 1/4W	
R202	1-249-423-11	CARBON 3.3K 5% 1/4W F		R256	1-249-417-11	CARBON 1K 5% 1/4W F	
R203	1-249-419-11	CARBON 1.5K 5% 1/4W F		R257	1-249-429-11	CARBON 10K 5% 1/4W	
R204	1-249-419-11	CARBON 1.5K 5% 1/4W F		R258	1-249-441-11	CARBON 100K 5% 1/4W	
R205	1-249-441-11	CARBON 100K 5% 1/4W		R259	1-249-437-11	CARBON 47K 5% 1/4W	
R206	1-249-417-11	CARBON 1K 5% 1/4W F		R260	1-249-437-11	CARBON 47K 5% 1/4W	
R207	1-249-429-11	CARBON 10K 5% 1/4W		R270	1-249-441-11	CARBON 100K 5% 1/4W	
R208	1-249-441-11	CARBON 100K 5% 1/4W		R301	1-249-429-11	CARBON 10K 5% 1/4W	
R209	1-249-423-11	CARBON 3.3K 5% 1/4W F		R302	1-249-429-11	CARBON 10K 5% 1/4W	
R210	1-249-425-11	CARBON 4.7K 5% 1/4W F		R303	1-249-429-11	CARBON 10K 5% 1/4W	
R211	1-249-431-11	CARBON 15K 5% 1/4W		R304	1-249-429-11	CARBON 10K 5% 1/4W	
R212	1-249-441-11	CARBON 100K 5% 1/4W		R305	1-249-429-11	CARBON 10K 5% 1/4W	
R214	1-249-393-11	CARBON 10 5% 1/4W F		R306	1-249-417-11	CARBON 1K 5% 1/4W F	
R215	1-249-429-11	CARBON 10K 5% 1/4W		R307	1-249-417-11	CARBON 1K 5% 1/4W F	
		(EXCEPT AEP, UK, G, IT)		R308	1-247-807-31	CARBON 100 5% 1/4W	
R217	1-249-429-11	CARBON 10K 5% 1/4W		R309	1-249-417-11	CARBON 1K 5% 1/4W F	
R218	1-249-425-11	CARBON 4.7K 5% 1/4W F		R310	1-247-807-31	CARBON 100 5% 1/4W	
				R311	1-247-807-31	CARBON 100 5% 1/4W	
				R312	1-247-807-31	CARBON 100 5% 1/4W	

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

PANEL SWITCH

Ref. No.	Part No.	Description				Remark
R604	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R605	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R606	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R607	1-249-413-11	CARBON	470	5%	1/4W	F
R608	1-249-415-11	CARBON	680	5%	1/4W	F
R609	1-249-417-11	CARBON	1K	5%	1/4W	F
R610	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R611	1-249-413-11	CARBON	470	5%	1/4W	F
R612	1-249-415-11	CARBON	680	5%	1/4W	F
R613	1-249-417-11	CARBON	1K	5%	1/4W	F
R614	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R615	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R616	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R617	1-249-430-11	CARBON	12K	5%	1/4W	
R618	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R619	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R620	1-249-430-11	CARBON	12K	5%	1/4W	
R621	1-249-430-11	CARBON	12K	5%	1/4W	
R622	1-249-401-11	CARBON	47	5%	1/4W	F
R623	1-249-401-11	CARBON	47	5%	1/4W	F
R624	1-249-408-11	CARBON	180	5%	1/4W	F
(EXCEPT AEP, UK, G, IT)						
(EXCEPT AEP, UK, G, IT)						
(EXCEPT AEP, UK, G, IT)						
< SWITCH >						
S601	1-571-760-11	SWITCH, KEY BOARD	(TIME)			
S602	1-571-760-11	SWITCH, KEY BOARD	(CONTINUE)			
S603	1-571-760-11	SWITCH, KEY BOARD	(SHUFFLE)			
S604	1-571-760-11	SWITCH, KEY BOARD	(PROGRAM)			
S605	1-571-760-11	SWITCH, KEY BOARD	(■)			
S606	1-571-760-11	SWITCH, KEY BOARD	(△ OPEN/CLOSE)			
S607	1-571-760-11	SWITCH, KEY BOARD	(DISC SKIP)			
S608	1-571-760-11	SWITCH, KEY BOARD	(⏮ ⏪ ⏩ ⏭)			
S609	1-571-760-11	SWITCH, KEY BOARD	(▷)			
S610	1-571-760-11	SWITCH, KEY BOARD	(⏮)			
S611	1-571-760-11	SWITCH, KEY BOARD	(DISC 1)			
S612	1-571-760-11	SWITCH, KEY BOARD	(▶▶ ▷▷▷)			
S613	1-571-760-11	SWITCH, KEY BOARD	(DISC 2)			
S614	1-571-760-11	SWITCH, KEY BOARD	(DISC 3)			
S615	1-571-760-11	SWITCH, KEY BOARD	(DISC 4)			
S616	1-571-760-11	SWITCH, KEY BOARD	(DISC 5)			

Ref.No.	Part No.	Description	Remark
		MISCELLANEOUS *****	
6	1-769-507-31	WIRE (FLAT TYPE) (37 CORE)	
* 51	1-452-538-11	MAGNET	
64	1-590-849-11	WIRE, FLAT TYPE (5 CORE)	
114	1-654-751-11	FLEXIBLE BOARD	
△151	8-848-387-01	OPTICAL PICK UP BLOCK KSS-213BA/S-N	
152	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
FL601	1-519-721-31	INDICATOR TUBE, FLUORESCENT	
M101	X-4917-523-4	BASE (OUTSERT) ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
M701	A-4353-976-A	MOTOR ASSY, ROTARY (TABLE)	
M702	A-4353-974-A	MOTOR ASSY, LOADING	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
S701	1-572-713-11	SWITCH, PUSH (WITH CONNECTOR) (DOWN DET)	

		ACCESSORIES & PACKING MATERIALS *****	
	4-937-945-01	PLATE (TRANSPORT), LOCK	
*	4-973-916-01	CUSHION (FRONT)	
*	4-973-917-01	CUSHION (REAR)	

		***** HARDWARE LIST *****	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-682-554-04	SCREW +B 3X25	
#3	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#4	7-682-961-01	SCREW +PSW 4X8	
#5	7-685-136-19	SCREW +P 2.6X12 TYPE2 NON-SLIT	
#6	7-621-255-15	SCREW +P 2X3	

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

SS-LB500/LB650V

SERVICE MANUAL



E Model
Australian Model
SS-LB500/LB650V

PX Model
SS-LB500

Chinese Model
SS-LB650V

SS-LB500 is the speaker system in
LBT-N550/N550K/N550P.

SS-LB650V is the speaker system in
SS-LB650CR and LBT-N550K.

Photo : L-CH

SPECIFICATIONS

SS-LB500

Type	3-way speaker system
Speaker unit	Woofer : 22 cm, cone type Tweeter : 6 cm, cone type Super tweeter : 2 cm, cone type
Rated impedance	6 ohms
Enclosure	Bass reflex
Dimension	280 × 481 × 271 mm (w/h/d)
Grill	Remove
Typeinput terminal	Terminal board
Weight	Approx. 6.2 kg/pc

SS-LB650V

Type	3-way speaker system Magnetically shielded type
Speaker unit	Woofer : 22 cm, cone type Tweeter : 6 cm, cone type Super tweeter : 2 cm, cone type
Rated impedance	6 ohms
Enclosure	Bass reflex
Dimension	280 × 481 × 271 mm (w/h/d)
Grill	Remove
Typeinput terminal	Terminal board
Weight	Approx. 6.4 kg/pc

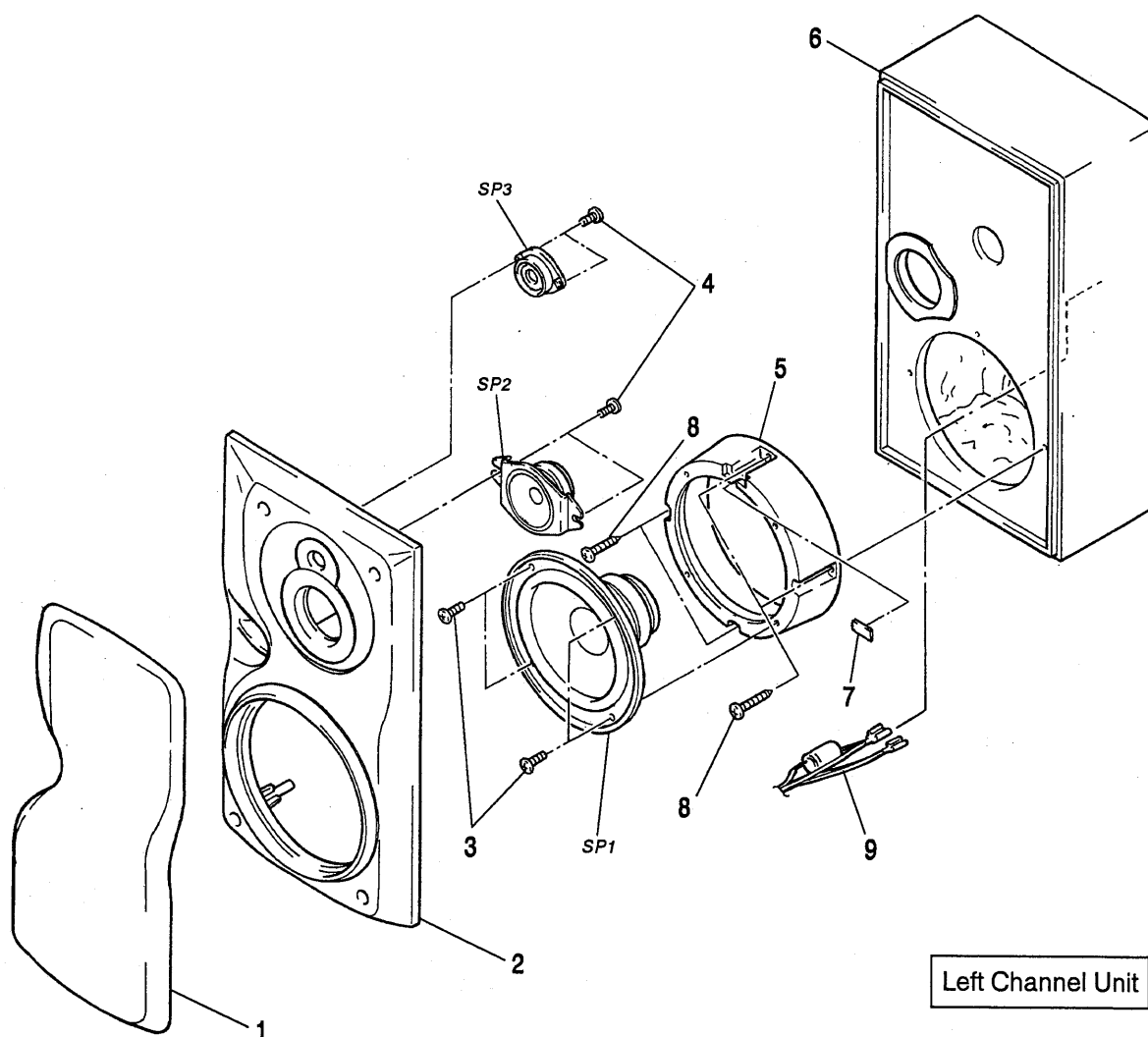
Design and specifications subject to change without notice.

3-WAY SPEAKER SYSTEM
SONY®

EXPLODED VIEW AND PARTS LIST

NOTE :

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.



Ref. No.	Part No.	Description	Remark
1	X-4945-663-1	FRAME (L) ASSY, GRILLE	
1	X-4945-664-1	FRAME (R) ASSY, GRILLE	
2	X-4945-661-1	PANEL (L) ASSY, FRONT (LB500)	
2	X-4945-662-1	PANEL (R) ASSY, FRONT (LB500)	
2	X-4946-346-1	PANEL (L) ASSY, FRONT (LB650V)	
2	X-4946-347-1	PANEL (R) ASSY, FRONT (LB650V)	
3	7-685-661-79	SCREW +BVTP 4×12 TYPE N-S	
4	7-685-659-79	SCREW +BVTP 4×8 TYPE N-S	
5	4-970-450-01	RING WOOFER	
* 6	A-4361-379-A	CABINET (L) ASSY, SPEAKER	
* 6	A-4361-380-A	CABINET (R) ASSY, SPEAKER	
7	9-911-840-XX	PACKING	
8	4-936-542-01	SCREW (4×20), TAPPING, +B	
9	1-558-848-11	CORD, SPEAKER	

Ref. No.	Part No.	Description	Remark
SP1	1-544-752-11	SPEAKER (20cm) (LB500)	
SP1	1-504-945-11	SPEAKER (20cm) (LB650V)	
SP2	1-504-677-11	SPEAKER (6cm)	
SP3	1-504-805-11	SPEAKER (2cm)	

PACKING & MATERIALS			

*	4-974-071-01	CUSHION	
*	4-974-070-01	INDIVIDUAL CARTON (LB500:AUS, PX)	
*	4-975-728-01	INDIVIDUAL CARTON (LB500:E)	
*	4-975-729-01	INDIVIDUAL CARTON (LB500:MX)	
*	4-976-488-01	INDIVIDUAL CARTON (LB650V)	